



iPoint Ultra v5.17 Hybrid Server USER MANUAL



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Introduction:

Thank you for purchasing our DVR system. This operation manual is to introduce how to set DVR system and explain each function of DVR system for you to use the system effectively and stably. Operators should go through this manual thoroughly before you install/utilize this DVR system. You can get this manual from your dealer or contact us directly.

Note: Please set the resolution of monitor as 1024x768 pixels before using this system.

System Features:

- Hardware support H.264 compression, low HDD cost.
- Web access through LAN or WAN.
- Real time full-motion video-capture & display (Up to 64 channel video input)
- Real time high-speed recording: Up to 30 frames/sec per channel
- Synchronous audio recording (optional)
- Motion detection (Whole area or up to 12 detection zones per channel)
- Normal recording (continuous) and event recording (Motion detection or external sensor)
- Electronic Map pop-up when alarm is triggered.
- System operating and alarm logging
- Alarm-before recording
- Remote recording
- Sending alarm message automatically.
- Sending alarm image to email box automatically as attachment.
- Matrix display and group display
- Duplex mode (Recording while playback)
- Network support (Remote access via LAN, Ethernet, PSTN, ISDN, ADSL)
- P/T/Z/F & speed demo control on keyboard
- Search/playback by date/time directory (random-access)
- Backup & burn CD directly
- Remote talking between server and client or server and server
- Important Information:
 - For optimal performance of your system, it is important to follow these recommendations.
 - We recommend that you divide your hard disk into two partitions (ie. C and D:). The first partition for installing Windows OS and system software, the other for storing record files.
 - Please use appropriate motherboard and display card. Contact your dealers or our support engineers if you have questions.
- Recommended System Requirements
 - Chipset: Intel 845PE, 865PE, 875PE, 915P, 945P
 - Motherboard: Intel: D915/945PCY, D865PERL
 - Asus: P4P800SE, P5P800 MSI: 865PE Neo2-F, 915/925/945;

- Gigabit: GA-865GME, GA-945PL-G etc
- Video Card: ATI Radeon 9250 128MB ATI Radeon 9550 128MB nVidia GeForce 6200 128MB nVidia GeForce 6600 128MB, ATI X500, X550, X700 etc;
- Processor: Intel Pentium 4 2.4GHz or better
- Memory: 512GB minimum.

1. Start Up and Main Interface

1.1. Start Up

Before you run DVR server, please check all connectors are firmly connected. By default, the DVR Server application will run and initialize cards automatically (total time is determined by the number of channels). Otherwise, double-click shortcut icon



to start. The main interface is as follows:



Figure 1-1

1.2 Main Interface

1.2.1 Show Tips

When the mouse moves close or stops above a button, a text tip will be shown to interpret the function of it.

Zoom in/out video image: Left-Double-Click a camera window to zoom in/out video image (or [press F11 on the keyboard](#)).

System will detect cards and read the total number automatically and the corresponding number buttons will be displayed dynamically.

Recording status:



a. This icon means the system is recording normally.



b. This icon means the system is recording manually.



c. This icon means the system is recording in motion detection.



d. This icon means the system is recording in sensor detection.

1.2.2 Screen Menu

Full Screen

Single-Right-Click image area, it will popup a menu, then select “full screen” to change display mode to full screen (or press F12 on the keyboard).

Instant Playback: Press TAB key or Page UP (select next camera window) or Page Down (select previous camera window) key on keyboard to select one live camera window. Then Single-Right-Click desired camera and select “Instant Playback” (Figure 1-2). After, choose a time from the submenu (Figure 1-3), and system will play back video data of current camera in current window according to your selection (E.g.: you select 1 min, system will play back previous 1 minute video data of current camera in current window). Also, you can play back video data of one current live camera in a window that is not used by any cameras (always black background with no “Video Loss” information): Select a window, and then Single-Right-Click it and select “Instant playback” (Figure 1-2). Finally, choose a time and the camera you want to playback (Figure 1-4), and then system will play back video data in current window according to your selection.

The window that is playing back video data will indicate a yellow border to be different from the live windows.

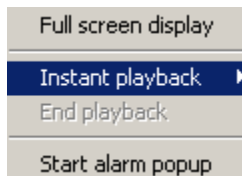
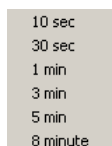
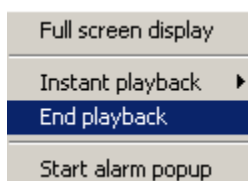


Figure 1-2

**Figure 1-3****Figure 1-4**

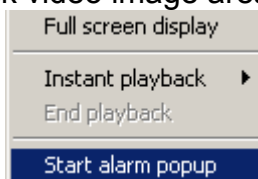
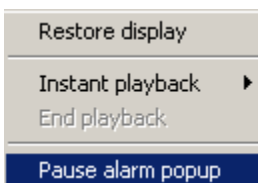
In the course of the instant playback, you can press the **Space** key to switch the **play/pause** status or direction key → and ← to play next and previous frame.

If you would like to stop the instant playback, you can Single-Right-Click the play backing window, and select “End playback” (Figure 1-5).

**Figure 1-5**

Alarm Popup

Single-Right-Click video image in main interface and select “Start alarm popup” after you [set “Alarm camera popup interval” in system setup](#), otherwise, it can’t be selected with gray. After that when there has a motion detection alarm ([set in PTZ & Linkage setup](#) and [Motion detection setup](#)) or an alarm triggered by sensor alarm ([set in Sensor setup](#)). System will display alarm cameras in sequence. When you want to end this function, you can Single-Right-Click video image area and select “pause alarm popup”.

**Figure 1-6****Figure 1-7**

Change Record Disk

From the information display panel you can view the current record disk. When you Single-Click the panel, it will show the available disk to record with its total amount of free space. Also you can change the record disk by checking the disk directly. The system will check the disk per 10s and it is recommended that you change the record disk to local disk when system is writing data and into removable disk before you remove the removable disk.

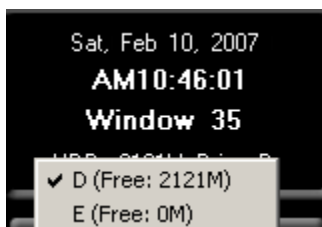


Figure 1-8

When the capacity of HDD is not enough or there has some mistakes while recording, the system will popup information to inform the failure of recording and the corresponding camera will stop recording.

1.2.3 Interface Description

Partition mode





Press  button to set the window's partition mode of the main screen. There are many types partitions. The available partition is determined by the total channels of the card. Select the suitable partition according to the number of video inputs. The partition number, which is bigger than total channel, is not available with gray.



Figure 1-9

Videos-Play-In-Sequence Mode Switch

Press  button to switch between playing all cameras in current windows in sequence and not when the current partition number is smaller than the total channels of card.

Emergency Record Button




Press  button to trigger recording of all cameras for 30 seconds, even if they have been set to record by any other modes. This function is useful in dealing with emergencies where a quick response is required.

Image Capture

Press  button to save a still image of a selected camera to local hard disk for reviewing or print.

Manual Record Switch

Press  button to record manually and press it again to stop manual record of selected camera.

Information Display Panel



Figure 1-10

This panel shows days of the week, current date, current time, total free hard disk space, current record disk and a description of selected camera.

Local Setup Submenu

Press  button to enter [Local setup](#) submenu.


Local Playback Submenu



Press  button to enter [Local playback](#) submenu to search local video/audio data.


Remote Chatting



Press  button to connect a remote Client or Server for a live chatting through IP network, but first, make sure you have installed an audio card and microphone in each PC.

System Log



Press  button to view all actions of recording as well as operations. System log keeps a record of system events such as program startup and shutdown, changing camera setup, and all operator or daily system activities according to time and date. Users can look log by date and system parameters. System parameter include operations, system prompts, alarms and other activities.

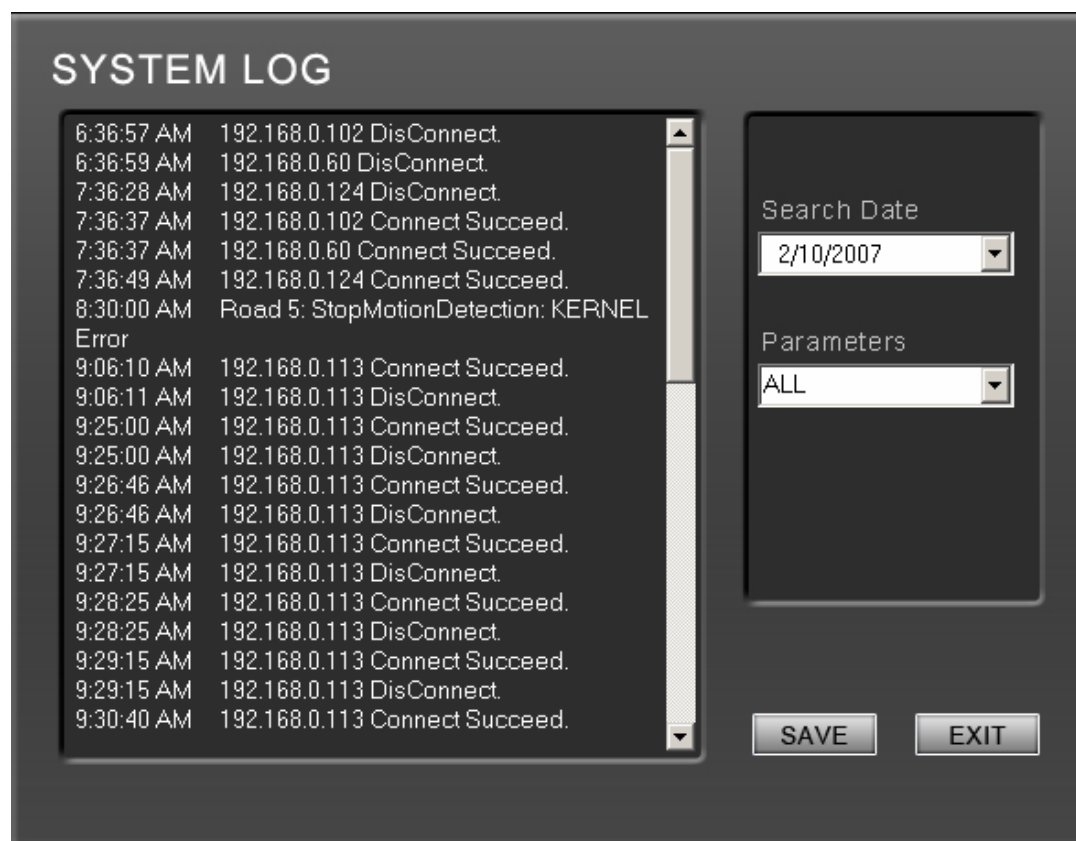


Figure 1-11

E-map



Press  button to set E-map.


Click  icon and then Right-Single-Click the map. You can add or delete sensors and cameras or change the digital map.




Figure 1-12

If it is set to appear automatically, and the sensor is triggered, the map will appear automatically and the sensor being triggered will be marked. For a triggered camera, user can Left-Double-Click it to view its video.

System Lock



Press  button to prevent unauthorized users to operate the system. Press this button again; the following dialog box will be displayed. Input your User ID and

password. Then press OK to unlock.

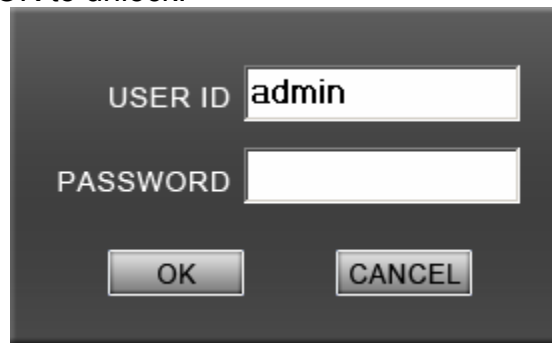



Figure 1-13

Default User ID is “admin”, no password.

Note: If the DVR system is not configured as User Manage Mode, the lock button will not be available and the system won't allow any client access (even in client program, user name and password will not work).

Minimize Button

Press  button to minimize the main window (or press WIN + Z on keyboard).

Exit Program

Press  button to exit program.

After clicking this button, a dialog will display. Click  to quit DVR system.

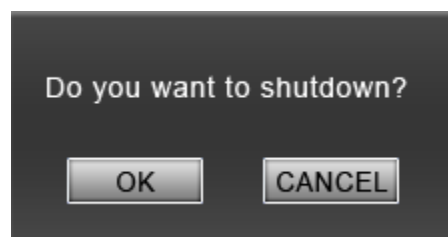


Figure 1-14

1.2.4 System Menu

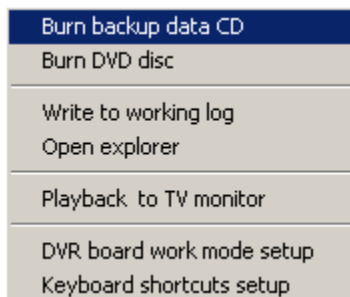


Figure 1-15

Burn Backup Data CD

Select this function to burn video data to a CD. It is the same function to burn a CD in [Local Playback](#).

Burn DVD Disc

Burn DVD disc by using professional burning software.

Write Working Log

This is useful to record events that occur during the operator's shift. Open Explorer. When keyboard is locked, users may operate window resource via explorer.

DVR Board Work Mode Setup

Each DVR system supports a maximum of 8 PCs 400XHC (total channel is equal to 64) series board, so user can setup its work mode via this GUI.

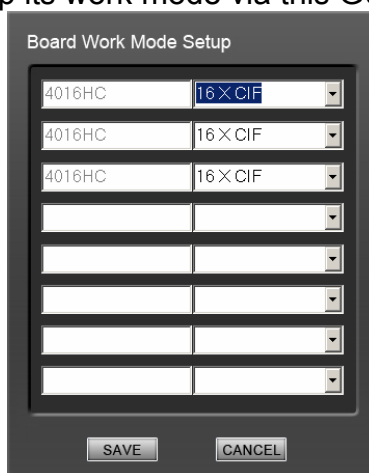


Figure 1-16

For 4004HC, 4008HC, 4016HC etc board models, you can setup its work mode. The new DVR board work mode will take effect after rebooting DVR Server software.

Play Back to TV Wall

In the DVR system, the recording data can be transmitted to TV monitor via Matrix card.



Figure 1-17

When the system runs “Playback to TV monitor” process, the Matrix card will emit recorded data. If this process does not run, matrix decode card will emit real-time video according to your [matrix board setup](#). In this process, you can play back recorded files by date and camera, and the recorded file will play automatically.

Keyboard Shortcuts Setup

If you don't want to use certain shortcut keys, you can disable the shortcut functions and save the setup.

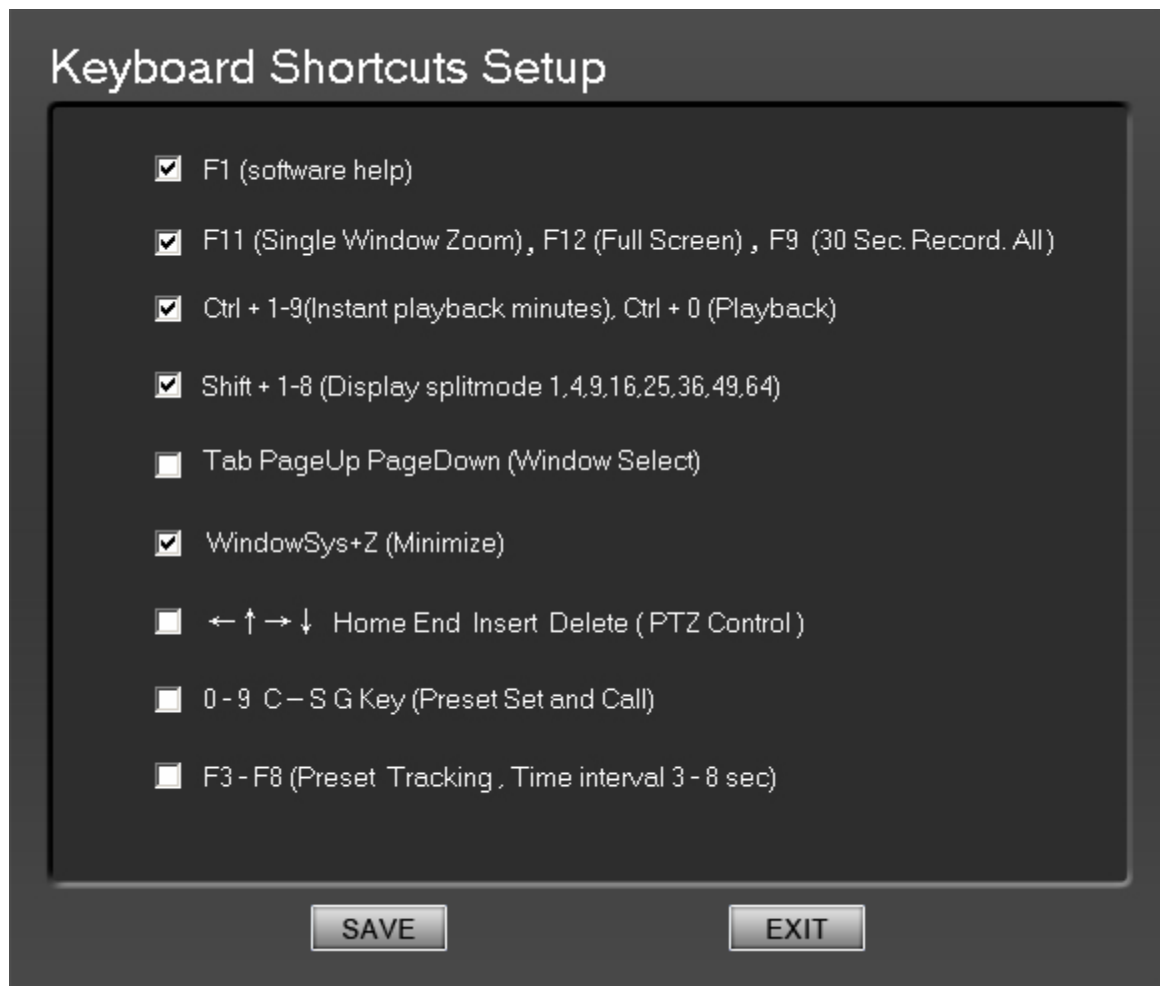



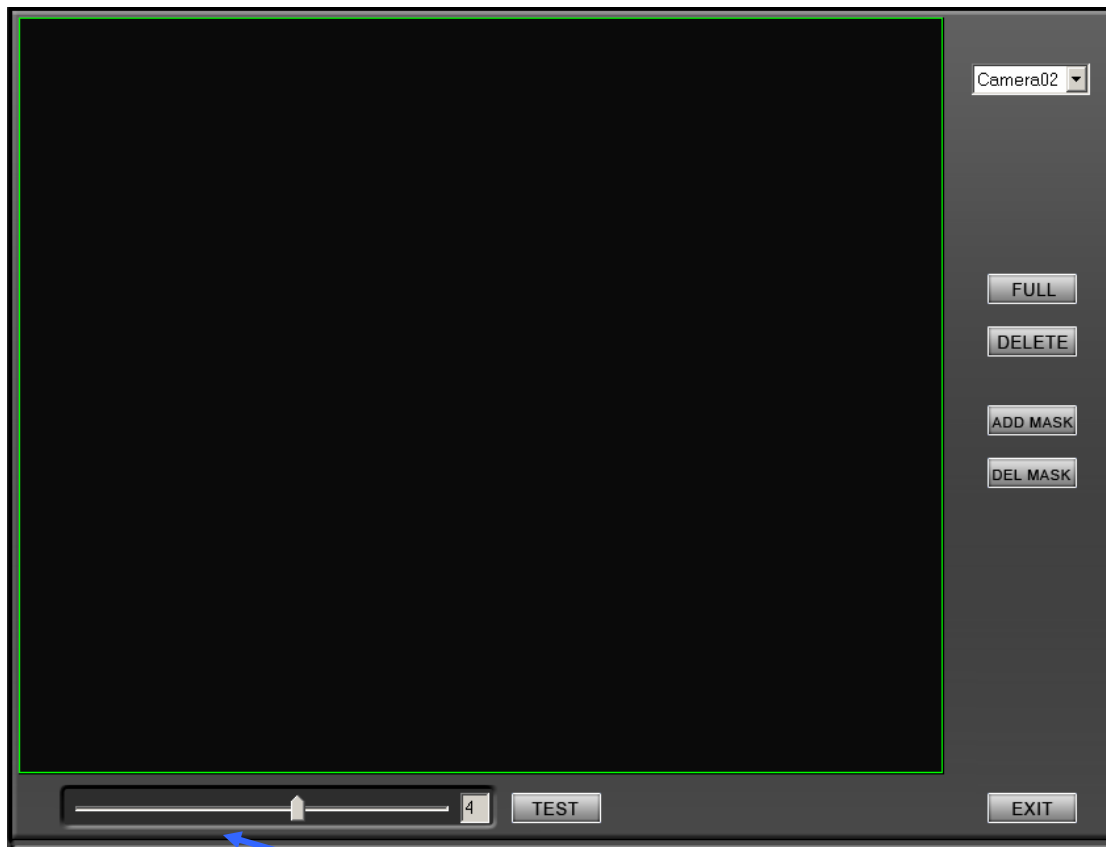
Figure 1-18

1.2.5 Motion Detection Area & Cover Setup

Press  button to set the built-in motion detection.

By default, the entire screen is set as motion detection area where it's indicated with green border around the image. To mask a specific area, you can click **DELETE** button to cancel the full screen detection border. Then Left-Single-Click and drag a rectangle. A green rectangle will mark the area. You can also set any other areas. Any activities in the motion detection areas will trigger recording, depending on the reaction mode, and alarms may be generated along with electronic map icons flashing in alert mode. Click **TEST** button to test the sensitivity of motion detection. The sensitivity can be adjusted by dragging the slider bar below the motion detection window.

Notice: motion sensitivity value will decide the accuracy of [smart search](#)



Sensitivity *Figure 1-19*

Add Mask / Delete Mask

Press **ADD MASK** button to add mask. If there are some areas that you don't want to show, you can draw those areas with mouse till they change to black. You can set several cover areas. Press this button again to finish adding

Press **DEL MASK** button to delete all covered areas.

1.2.6 Network Panel

This panel displays the network configuration of system.

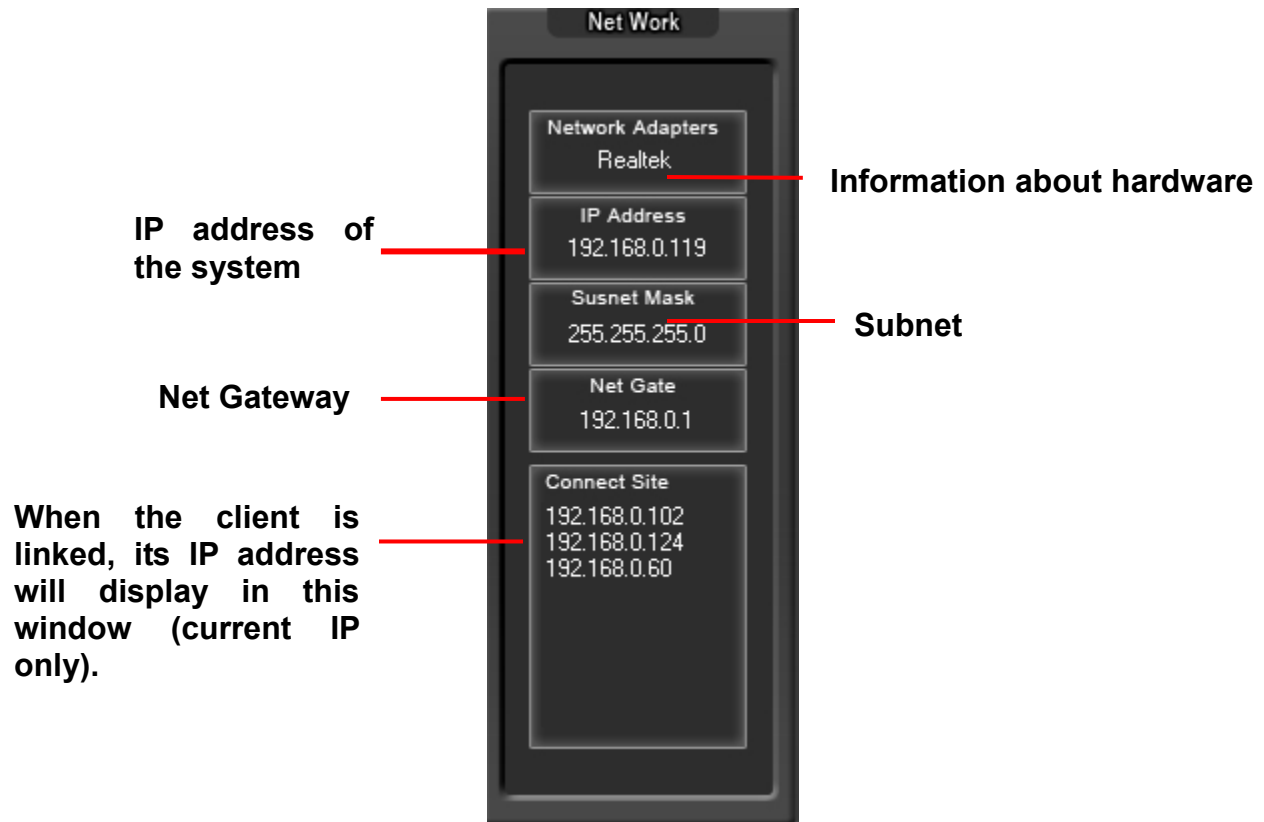


Figure 1-20

1.2.7 PTZ Control Panel

In DVR system, there are three ways to operate the PTZ:

- Panel operation ([Figure 1-12](#))

- Operation in video area directly ([Figure 1-14](#))

- Keyboard operation ([Figure A-1](#))



Figure 1- 21

Relay (On/Off)

Control the PTZ cameras via internal relay (relay1) or the decoder's relay (relay 1). This is used to turn on a light or control an access gate.

Wiper (On/Off)

If using the PTZ camera corresponding wiper control relay, this toggles the relay/wiper on and off.

Zoom + / Zoom –

Controls the zoom function of the PTZ camera.

Focus + / Focus –

Overrides the auto-focus setup of the PTZ camera and adjusts the image focus.

Iris + / Iris –

Overrides the PTZ cameras auto-iris and brightens or darkens the image.



By pressing and holding these buttons, the PTZ camera is moved up, down, right and left as well as other directions.

Speed Demo

Press button and the following picture will appear (in the bottom of main window). There are 16 preset positions for the speed domes in the left part and the numeric panel is in the right part (user can setup 64 maximum presets, but only 16 preset is available).

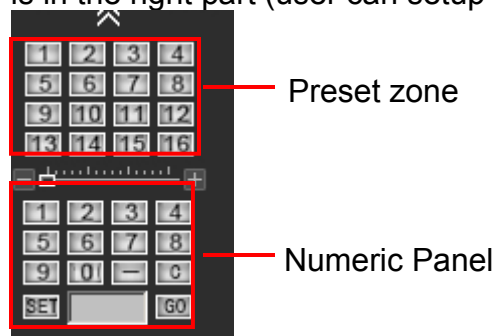
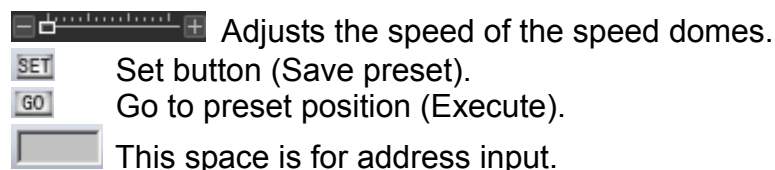


Figure 1-22



Setting Steps

Move speed domes to desired position. Then input the address in address space (take 3 as an example here). Finally, press **SET** button. The point for 3 will be bright. You can set others the same way.

Delete Preset Position

Left-Single-Click '-' button and select preset position number you want to delete from numeric panel then click **SET** button.

Execute Preset Position

If preset number is less than 16, you can execute it directly by clicking the number button in PRESET ZONE.

If preset number is bigger than 17, you can execute it by clicking number button then click **GO**.

Cruise all preset position automatically

Start cruise: In the numerical panel click symbol “-” and number (the interval time of two preset positions), then click **GO**. Ex, “-5”, mean all preset cruise according to 5 sec intervals. Click “F5” in keyboard has same effect with this.

Stop cruise: In preset zone, click any preset position, and then click **GO**.

Control PTZ via video window








Figure 1-23

On Image 23, each rectangle area is the effective area of every action. Arrow denotes the direction of the action. Pressing and dragging the mouse to the corresponding area will control the PTZ.

1.2.8 Color and Audio Adjustment



Figure 1-24

- Press the first button, bottom left, and drag to adjust the brightness of the image that you selected. You can resume its default value by pressing .
- Press the second button and drag it to adjust the contrast of the image that you selected. You can resume its default value by pressing .
- Press the third button and drag it to adjust the hue of the image that you selected. You can resume its default value by pressing .
- Press the fourth button and drag it to adjust the saturation of the image that you selected. You can resume its default value by pressing .
- Press the fifth button to switch sound of the audio that related to the image you selected and drag the bar to adjust the volume. You can resume its default value by pressing .

1.2.9 Matrix & Display

This panel includes the matrix group and display group. Each group includes 16 numeric buttons and each button denotes one type of matrix or display. This will describe in [System setup](#).

1.2.10 DI/DO Control




The channel of DI and DO is determined by the setup of DI/DO device in [System setup](#).



Figure 1-25

DI Control



Press the number button to check sensor automatically even though user didn't set check sensor in [sensor setup](#). The status of DI has three types:

-  Input channel 3 doesn't check sensor automatically.
-  Input channel 2 checks sensor automatically.
-  Input channel 1 has an alarm.

To verify alarm, user can press any number button to check sensor automatically. Press the button again to stop. Then system check sensor according to [Sensor setup](#). When an alarm has been triggered, the corresponding button will be identified by turning green.

DO Control

Press a number to open/close alarm device relay switch manually. The DO status has two types:

-  Output channel 2 is closed.
-  Output channel 1 is opened.

If no alarms have been triggered, user can press the number button to output alarm automatically and the button will turn green. Press it again the output will be closed.

2 Local Setup

The DVR System Configuration and Setup includes 7 types configuration setup:

 System	System setup	 Camera	Camera setup
 Sensor	Sensor setup	 ptz & Linkage	PTZ & linkage setup
 Email	Email setup	 Matrix	Matrix & display setup
 Password	User setup		

2.1 System Setup



The screenshot displays three configuration windows from the DVR system. The top window is titled 'SYSTEM SETUP' and contains various settings for channels, sensors, and recording. The middle window is titled 'NETWORK SETUP' and contains settings for remote connections, DNS, and local host names. The bottom window is titled 'BOOT SETUP' and contains settings for system shutdown and reboot.

SYSTEM SETUP

Number of Channels: 48	Sensor Inputs(DI): 16	Sensor outputs(DO): 8
Audio Monitoring: Disable	Use E-Map: Disable	Camera Sequencing Interval: 2 Sec
DI/DO Port: [blank]	System Keystroke: Allow	Save Log For: 30 Days
When Disk is Full: Overwrite Data	Recording Disk: D:\	Alarm Camera popup Interval: [blank] Sec
DI/DO Device: NV7608	Date Format: Sat Jan 22, 2005	Default Camera type: NTSC
Alarm Beep: Disable	Time Format: PM 03:12:18	

NETWORK SETUP

Remote Connection: Enable	Remote Port: 5100	Remote Buffer Priority: smooth
Automatic Alarm Notification Client IP: [blank]	Alarm Send Port: 5300	Web Server Port: 80
Use DNS: Disable	Local Host Name: [blank]	Permit Max Connect Video Num: 128
DNS Server IP: [blank]	DNS Connection Port: 7100	Interval Connection Time: 120 sec

BOOT SETUP

<input checked="" type="radio"/> Exit to Windows <input type="radio"/> Exit and Shutdown <input type="radio"/> Auto Shutdown	0 H 0 M
Auto Reboot Date(Mon - Sun): 1 2 3 4 5 6 7	Reboot at: 0 H 0 M

Figure 2-1

2.1.1 System Setup

- 【Number of Channels】 Displays total number of channels.
- 【Sensor Input (DI)】 Displays number of sensors (DI).
- 【Sensor output (DO)】 Displays the number of alarms (DO).
- 【Audio Monitoring】 Selects real time monitoring audio.

【Use E-Map】 Selects Electron Map.

【Camera sequencing interval】 Sets auto-split by changing time intervals.

【DI/DO Port】 Selects sensor/alarm driver connecting port. It must be different from the PTZ Port. If you do not use alarm input, close this function.

【System Keystroke】 System keystroke. When in use, functions of system keys will be disabled (Ctrl+Alt+del included).

【Save Log for () Days】 Logs saved days (max 100 days).

【When disk is full】 Selects record mode when there is not enough HDD free space. If user selected “Overwrite data”, DVR will delete the recorded data of the oldest day, automatically, to free HDD space for newest record. If user selected “Stop recording” DVR will stop recording and give a warning message (**Notice:** each disk will reserve 1000M space).

【Recording Disk】 Selects the first disk from which the DVR saves data. The previous disks will not be used to record and will not be checked by the system. When the capacity of HDD is not enough or there are some mistakes while recording, the system will inform the failure of recording and the corresponding camera will stop recording.

【Alarm camera popup interval】 Set the alarm interval of the camera. If you select “-”, you can’t select function [“Start alarm popup”](#).

【DI/DO Device】 Select to receive alarm device types. Our DVR system supports 4 different alarm devices: NV7608, NV7609, NV7616, and NV7616B. If the user changes the type of alarm device, you should reboot the system to update the device information in [DI/DO control panel](#).

【Date Format】 Select to display date. System will decide the date display mode of DVR system. It will include the information panel on the main screen, the date panel of the playback window and OSD date in video.

【Alarm Beep】 Select to disable or enable from drop-down list. If user selects “enable”, and an alarm is triggered, the system will beep.

【Time Format】 Selects time mode.

【Default Camera type】 Sets the default mode of video from PAL and NTSC. It is available when the input video is lost and for the decode to playback local video to TV Wall.

2.1.2 Network Setup

【Remote Connection】 Selects network. If user selects “disable”, it will not permit any client to connect this DVR system.

【Remote Port】 Selects remote connecting port.

【Remote buffer Priority】 There are three items selected “smooth”, which controls the system to have large buffer “real time” demands, however, there must be enough bandwidth. Otherwise, the data will travel infrequently when it is sent from the network.

【Automatic Alarm Notification client IP】 Assign a network client to receive alarm messages when an alarm is triggered. The alarm channel image will auto display in the client software. The user must make sure client has run on the pc and own this IP

address, or else, DVR server will take many IP resources due to trying to connect continuously.

***Note:** Alarm auto connection to IP is used to input alarm automatically. When the sensor, normal or motion record button is set to input and there is IP address, the system will check if the client has connected with this system. If there is no connection, the system will try to connect with it through Port 5300 (preset). If the system cannot connect, the DVR will keep trying till the connection is complete. Ensure that your client's program is in use, Port 5300 is listening and the network is in good condition. If not, the system will not be stable.

【Alarm Send Port】 This is the alarm message connecting port, as well as client program listen port.

【Web Server Port】 The [IE client](#) connecting port. Default value is 80 for http access, but for some windows XP, it shields port 80. In this case, user should modify this port to another port, such as 1280. After that, user must reboot DVR server, then user can access DVR server via IE Client like this: http://IP: 1280 (IP can be a static IP or dynamic domain name).

【Use DNS】 Select to use DNS. Supports dynamic IP.

【Local Host Name】 Input the name description of DNS Server identification.

【DNS Server IP】 DNS server host IP.

【DNS Connection Port】 DNS server host port. This is used to connect DNS server. DNS server work mode. If required, please get DNS server software to developer.

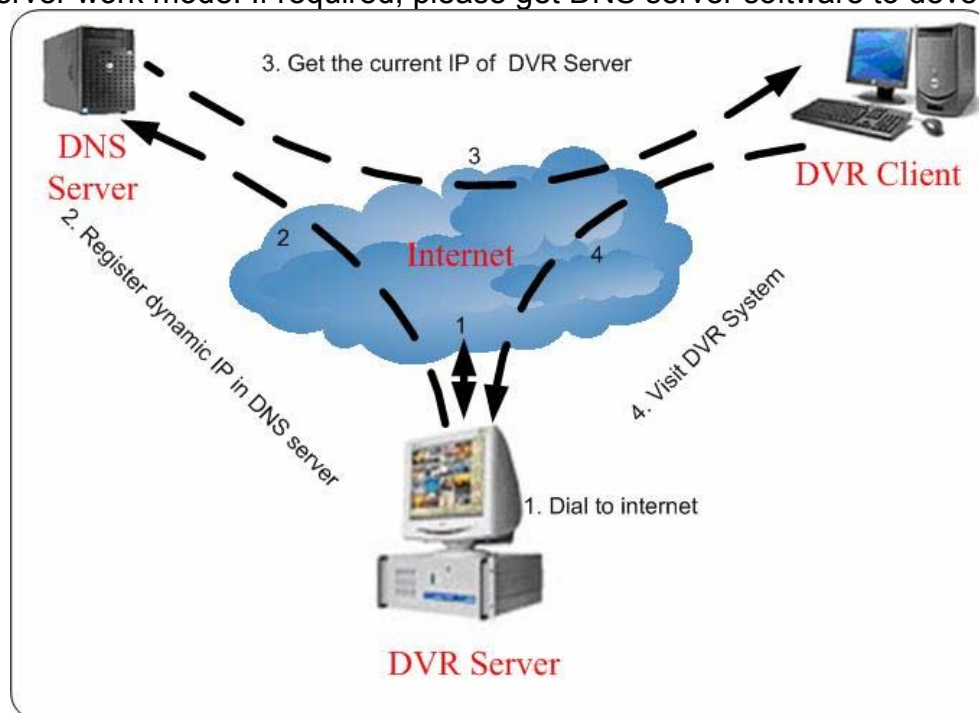


Figure 2-2

If your DVR is a dynamic IP, you should set your DVR system as follows:

Use DNS	Enable	Local Host Name	PCDVR	Permit Max Connect Video Num	128
DNS Server IP	192.168.0.21	DNS Connection Port	7100	Interval Connection Time	120 sec

Figure 2-3

DNS server will get domain name and current IP of your DVR and NVR Client can connect DVR server through this domain name.

DVR Register List			Update DVR List
Device Name	IP Address	Port	
DVR119	192.168.0.119	5100	

Close Window

Figure 2-4

NVR Clients get IP of DVR through DNS server according to its domain.
NVR Clients visit DVR through the IP from DNS server.

【Interval Connection Time】 Sets the interval time to connect DNS automatically.

【Permit Max Connect Video Num】 The maximum number of videos, that are permitted to the client, to connect the DVR server. The number can select according to the network bandwidth. The maximum is 256. For example: one DVR server owns 2Mbit of network bandwidth, all video channels compress base on CIF resolution (max data bit rate is 500Kb). To get better video effects, set 4 as the maximum number permitted to connect videos.

2.1.3 Boot Setup

【Exit to Windows】 User can exit program and go back to windows desktop.

【Exit and Shutdown】 User can exit program and shut down computer.

【Auto Shut Down】 Sets the time to shut down the computer .

【Auto Reboot Date(Mon-Sun)】 Select auto reboot date.

【Reboot at】 Sets auto-reboot time.

2.2 Camera Setup

The screenshot displays two configuration windows from the iPoint Ultra v5.17 Hybrid Server User Manual. The top window, titled 'CAMERA SETUP', contains various settings for a selected camera (Camera01). The bottom window, titled 'GROUP SETUP', shows settings for a selected group (Group01), including a calendar for recording schedules.

CAMERA SETUP

Selected Camera: Camera01 | Camera Description: Camera01

Camera Type: PAL | Camera: Enable | Remote Frame Rate(fps): [Dropdown]

BitRate: Variable | Frame Rate(fps): 25 | Remote Image Size: Same as R |

Image Quality: Very Good | Alarm Adjust fps: Disable | Remote Quality: Best |

Image Size: 352*288 | OSD Pos: TL-Corner | Masking Bitmap File: [Text Field] |

Record Days: Auto | OSD Contrast: 255 | Copy Setup to: ALL | COPY

GROUP SETUP

Selected Group: Group01 | Swap File(M): 30

Selected Cameras: [Grid of 32 cameras, 1-32]

Pre-Event Record: 5 Sec | Post Record Time: 5 Sec | Record Audio: Video |

Recording Modes: [Normal Record] [Sensor Record] [Motion Record] [Motion or Sensor Record] [Not Record]

Calendar: [Grid showing days of the week and recording status]

Figure 2-5

2.2.1 Camera Setup

【Selected Camera】 To set the parameters for a camera, select the camera from the drop-down list.

【Camera Description】 Input the description for easy identification.

【Camera Type】 Select camera type from drop-down list. Users can choose from PAL and NTSC.

【Camera】 Enable or disable selected camera. Video loss detection will sound if a camera is not physically connected while enabled.

【Remote Frame Rate(fps)】 Set the frame rate of the client.

【Bit Rate】 Set record mode. Variable Bit Rate (VBR) or Constant Bit Rate (CBR) Recording.

VBR allows each frame to be recorded at a dynamic bit rate depending on the image complexity, activity and color.

CBR allows each frame to be recorded at fixed bit rate, regardless of the scene activity. In many cases, this limits detail (resolution). The benefit of CBR is its ability to accurately estimate the total video capacity.

【Frame Rate(fps)】 Set the recording rate for selected camera. For Frames per Second (fps), the frame rate should be from 1 to 30 fps. While image size is set “704 x

576(12fps)", the frame rate should be set around 1 to 15 frame.

【Remote Image size】 Select image resolution to be transmitted to clients. When you set the **【Image Size】** as 4CIF (704x576), this configuration is not available. The program will select it as CIF automatically because the DVR board does not support dual stream when it records with 4CIF resolution.

【Image Quality】 Sets the quality of the image to be recorded. Select from Poorest, Poor, Medium, Very Good and Best.

 Click this button to make advanced setup for video quality. You can set I B P frame and a maximum bit rate.

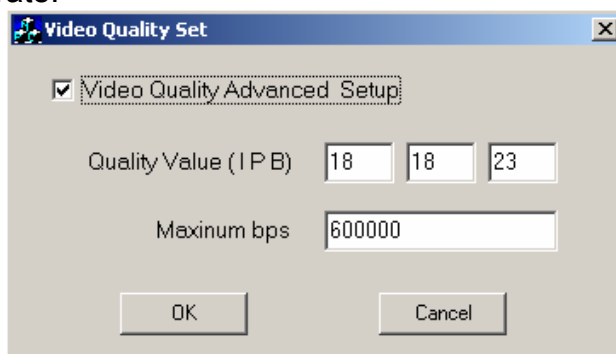


Figure 2-6

(Note: If you're not familiar with those features, we suggest you not to revise them)
Recommend setup:

For CIF:

Image quality	I frame value	P frame value	B frame value	Max bps
Best	12	12	17	900000
Good	15	15	20	750000
Medium	18	18	23	600000
Low	21	21	26	450000
Lowest	24	24	29	300000

For DCIF:

$\text{Maxbps} = (\text{Maxbps}/3) \times 5$

Note: **Maxbps** is the CIF's value with the same configuration (I P B)

For D1:


$\text{Maxbps} = (\text{Maxbps}/3) \times 8$

Note: **Maxbps** is the CIF's value with the same configuration (I P B)

【Alarm Real Time】 Select enable or disable. If user selects "enable", and an alarm has occurred, the camera will record with a frame rate (25fps or 30fps), even though

“frame rate” has been set other values (ie: 5fps).

【Remote Quality】 Set the image quality of the clients to be recorded from Poorest, Poor, Medium, Very good and Best.

Click this button,  and users can make advanced setup for video quality from the client end. They also can setup I B P frame and adjust maximum bit rate according to the network bandwidth. **【Image Size】** Set the resolution for local record. There is an item “704x576(12fps)”, and each channel can be set “704x576”, but not real time. The system will select frame rate automatically around to 12-15fps. To get the best effect, you should set the resolution of local record according to your CPU configuration. There is a referenced configuration sample below:

Computer Configuration:

CPU: Intel Pentium 4 2.4GHz

Motherboard: ECS 848P-A

Graphic Card: ATI 9550 128MB,

Memory: 512MB

HDD: 120G(IDE)

Recommended resolution configuration for different channels:

DVR Board Channels	Recommended Resolution	Remark
64	CIF	Continuous recording is not recommended
48	CIF	
40	DCIF	
	CIF	
32	DCIF	
	CIF	
24	DCIF	
	CIF	
Less or Equal to16	4CIF	
	DCIF	
	CIF	

【OSD Contrast】【OSD Pos】 Set OSD displaying brightness & position. An “auto” item in OSD Contrast’s drop-down list will make OSD suit the background’s color automatically.

【Masking Bitmap File】 Watermark function. The logo picture must be edited at 128x128 pixels file size and saved as bmp format.

【Record Days】 This section allows users to determine how long the recorded data of each camera should be kept by the system. The maximum duration for on-line storage is 120 days. Users can select exact number of days, or can select “auto” mode. If user selects “auto”, system will auto-delete the recorded data of the earliest days when there is not enough space.

***NOTE:** If there is not enough space in HDD, the system will delete the record data according to the length of saving time of each camera. Ie: there are four cameras, the 1st camera saves two days, the 2nd camera saves five days, the 3rd camera saves 10

days, and the 4th camera we will set “auto” mode. If there is enough space, the 4th camera’s recorded data will save in HDD. If there isn’t enough space, the system will delete data automatically. If the 4th camera’s recorded data has been saved more than 10 days, the system will delete the 4th camera’s data. If the 4th camera’s recorded data has been saved less than 10 days, but the 3rd camera’s data is more than 10 days, the system will delete the 3rd camera’s data. So, even if you set the 3rd camera’s recorded data saving at 10 days, the data that is saved less than 10 days becomes accessible. System will delete the recorded data from the earliest date.

【Copy Setup to】 Sets other cameras with the same setup.

***Notes:**

1. If less than 64 cameras are being used, many of them can’t provide pictures and sometimes an alarm will appear (beep to tell you some video information is missing). Set the disabled camera with no picture and the alarm will disappear. When you want to use them later, set enabled again.
2. The unit of the swap file should be MB. The range is 2 to 50.
3. Set the position and contrast of the date shown on the screen. Sometimes the date cannot be clearly seen because its color is similar with the background. You can change its position or color when this happens.
4. Image size is the format used when recording. Remote image size is the format used when these images are transmitted to client sides.
5. Remote Frame Rate. Remote image size and Remote Quality are the parameters of the client side. When the server’s image size is set as “704x576 (12fps)”, these three items have no effect and client’s parameters will be same as the server. When the server’s resolution is set as others (except “704x576(12fps)”) and if Remote image size is set as “Same as Record”, the Remote frame rate (fps) and Remote Quality have no effect and the client’s parameters will be same as server.
6. Variable Digital Rate Table

Image quality	record environment	occupied disk space (/com/hour)
Poorest	low action, indoor	about 45Mb
	high action, road	about 95Mb
medium	low action, indoor	about 70Mb
	high action, road	about 180Mb
best	low action, indoor	about 160Mb
	high action, road	about 320Mb

Invariable digital rate can’t improve image quality but it is helpful for calculating disk space. Variable digital rate recording is recommended.

2.2.2 Group Setup

Note: If you set a camera into several groups, only the last setup is available.

【Selected Group】 Selects group number.

【Swap File】 Sets recorded video file size saved in HDD. For easy backup, don't set too large file size. Up to 512M can be set, but 30M is recommended.

【Selected Cameras】 Selects the camera that have the same work mode with groups.

【Pre-Event Record】 Selects the start time of recording when there is an alarm. When DVR system is in Motion Detect mode or Sensor Detect mode, it can record video before the alarm is trigged.

【Post Record Time】 Selects the end time of recording when an alarm is triggered. When the system is in Motion Detect mode or Sensor Detect mode, it can record video after the alarm end.

【Record Audio】 Selects whether program records audio data.

Schedule Setup (Example for the following figure)

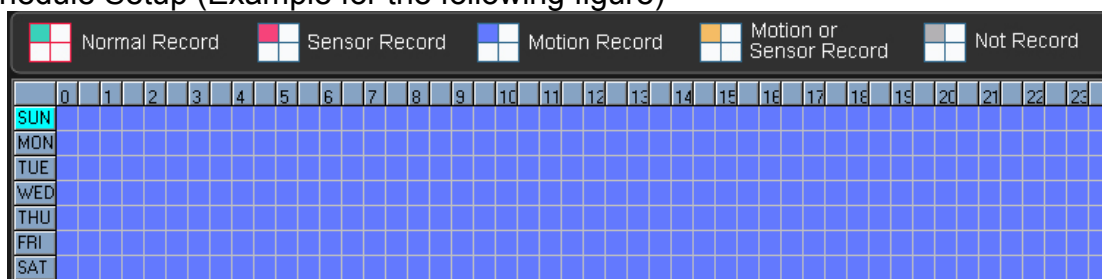




Figure 2-7

Tips: One block of a pane  means half an hour. Firstly click record mode icon , then click schedule diagram. Hold down the mouse and move it to select large area (Drag & Drop).

1. Normal Record (Green): DVR System is always recording video. (e.g. Sun. Fri. Sat.)
2. Motion Detect (Blue): DVR System begins to record video only when it detects moving objects. (ie. Mon.) Click "Motion Detect" icon then select your schedule time by drag & drop. For example, the above picture means: on Monday it is motion detect recording, on Sunday it is normal recording, but on TUE, WED and THU from 3:30 to 11:00 it is sensor recording. From 14:00 to 22:30 it changes to both motion detect recording mode and sensor detecting record mode. All other time is normal recording.
3. Sensor Record (red): DVR System begins to record video only when there is a sensor alarm. (3:30 to 11:00 in Tue. Wed. Thu.)

Note: The time setup must correspond with Check Alarm setups in Sensor setup otherwise it can not work properly.

4. Motion or Sensor Record (yellow): Combine with above 2 and 3 function.
5. Not Record (gray): DVR System does not record video.

2.3 Sensor Setup

SENSOR SETUP

Select Sensor: Sensor: Sensor Position:

Activate PTZ Preset: Play Alarm Sound: ...

Link to PTZ:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																	

GROUP SETUP

Selected Group: Sensor Type: Alarm Write Log:

Alarm Action After It Times-out: ☒ Stop Immediately ☐ Do Not Stop ☐ Wait Secs. Then Stop

Sensor Input:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Start Recording Cameras:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																	

Trigger Output Relays:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

☒ Check Sensor ☐ Not Check

Calendar grid showing days of the week (SUN, MON, TUE, WED, THU, FRI, SAT) and a grid of 32 relay numbers (0-31) for each day.

Figure 2-8

2.3.1 Sensor Setup

【Select Sensor】 Select the camera from the drop-down list in order to set the parameters for a sensor.

【Sensor】 Select a sensor port.

【Sensor Position】 Enter the description for easy identification.

【Activate PTZ Preset】 Select linkage of Speed Dome preset number. Speed Dome will move to this preset number automatically when there is an alarm. (Speed Dome installation needed).

【Play Alarm sound】 Select a sound of .wav for a sensor. If there is an alarm, the sound file will play.

【Link to PTZ】 Select camera(s) that is related to this sensor alarm.

2.3.2 Group setup

Sensor group setup is very similar to the group setup of camera recording.

【Selected Group】 Select group number.

【Sensor Type】 Select NC or NO alarm type.

【Alarm Write log】 Select write alarm log.

【Alarm Action After It Times-Out】 Select system alarm linkage mode when an alarm stops. “Stop Immediately” means the system stops alarm immediately after the alarm driver stops an alarm. “Do Not Stop” means the system doesn’t stop alarm after the alarm driver stops an alarm. “Wait” means the system will stop alarm at your setting time after the alarm driver stops an alarm.

【Sensor input】 Add sensor to selected group.

【Start recording cameras】 Set cameras that to be related to this sensor group. They will start recording and connect to remote network client automatically when an alarm is triggered.

【Trigger Output Relays】 Add alarm devices (alarm out port) to this group such as sirens or lights. All connecting devices will send alarm messages when there is an alarm.

Schedule Setup (Example for below figure)

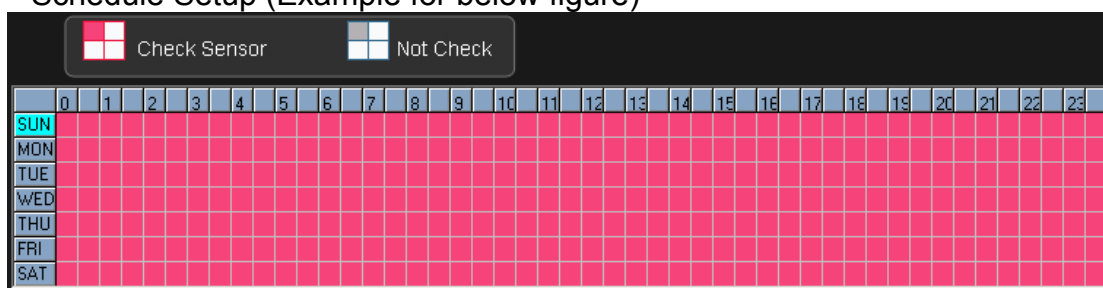


Figure 2-9

1. Check Alarm (Red): DVR System responds with sensor during this time. (00:30 to 12:00 from Sun. to Sat.)

2. Not Check (gray): DVR System doesn’t respond with sensor in this time.

Note: If you set a camera in several groups, only the last setup is available.

2.4 PTZ & Linkage Setup

The screenshot shows two configuration panels. The top panel, titled 'PTZ PROTOCOL SETUP', contains the following settings: Selected Camera (Camera01), PTZ Port (COM1), PTZ Protocol (Pelco-D(H)), PTZ Address (1), PTZ Baudrate (2400), and PTZ Position (Normal). The bottom panel, titled 'CAMERA DETECTION RELAY CONTROL/REMOTE CLIENT ALERT', contains settings for DO Port (D001), DO Port Name (DO-1), Camera Alarm Detected In (Camera01), Send Alarm To Client (Disable), Motion Alarm Sound, Video Loss Alarm Sound, and Trigger DO Output (a row of buttons numbered 1 to 16). Below these settings are four checkboxes: Motion & Video Loss (checked), Motion Alarm (unchecked), Video Loss (unchecked), and Not Check (unchecked). At the bottom is a calendar grid showing days of the week (SUN to SAT) and a grid of numbers from 0 to 23.

Figure 2-10

2.4.1 PTZ Protocol Setup

【Selected Camera】 Select the camera from the drop-down list to set the parameters.

【PTZ Port】 Select PTZ connecting port. When not using the PTZ port, choose “-----”.

【PTZ Protocol】 Select the PTZ protocol for the PTZ camera.

【PTZ Address】 Set the camera ID number of the PTZ camera being controlled.

Note: The PTZ camera has a dipswitch to set the PTZ address. The PTZ camera ID number must match with the number of this dipswitch.

【PTZ Baud rate】 Select PTZ Baud rate for the PTZ camera.

【PTZ Position】 Select the installation mode of the PTZ according to its installation mode.

Notes:



1. PTZ position will influence PTZ control. I.e: if you set it as obverse and press left, then it will turn left. If you set it as inverse and press left, then it will turn right.
2. If there is (H) after the PTZ protocol, it has the high speed of Preset function. If there is no (H), it only has ordinary functions.
3. The PTZ address will be sent as a message option. Take note that some addresses begin from 0. That is to say, when the address number is 1, the real address is 0. So user must set it according to their relations.



2.4.2 Motion Detection Relay & Remote Client Alert

【DO Port】【DO Port Name】 Select a DO port and set its name to identify the DO port. It will be shown as a tip when the mouse moves closely or above the DO button in DVR Server or NVR Client.

【Camera alarm detected In】 Selects camera to be set from dropdown list.

【Send Alarm to client】 Selects sending alarm to network clients and sends e-mail to specified user.

【Motion Alarm Sound】 Press  button to select a “.wav” sound File for a motion alarm. If there is a motion alarm, the sound file will be played. Also, you can test it by pressing  button.

【Video Loss Alarm Sound】 Press  button to select a “.wav” sound File for a video loss alarm. If there is a video loss alarm, the sound file will be played. Also, you can test it by pressing  button.

【Trigger DO Output】 Selects which DO ports will be triggered by above camera alarms.

Schedule Setup (Example for below figure)

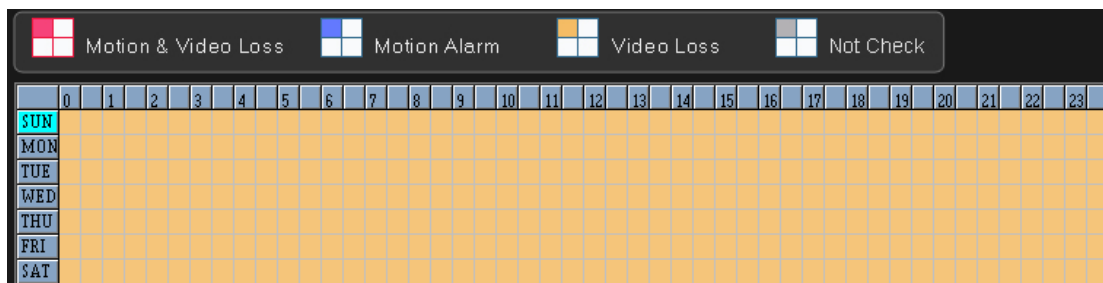


Figure 2-11

1. Motion & Video Loss (Red): DVR System responds with Motion Detection and Video Loss alarm in specified time.
2. Motion Alarm (Blue): DVR System only responds with Motion Detection alarm in specified time.
3. Video Loss (Yellow): DVR System only responds with Video Loss alarm in specified time.
4. Not Check (gray): DVR System doesn't respond with any alarms in specified time.

Note: Check Alarm Setup (including Motion & Video Loss, Motion Alarm and Video Loss) will not effect Motion Detect Record. It is only alarm setup. It takes affect to motion detect alarm and motion detect alarm to network.

2.5 E-mail Setup

Press  button to enter E-Mail setup:

Note: Before you set the E-mail setup, you should pay attention to several points below: The alarm that triggers E-mail includes two types: Camera-related alarms (Motion

detection alarm & Video loss alarm) and Sensor-related alarms.

For Camera-related alarms, users should set [Motion detection area & Cover setup](#) and to check alarm in [Motion detection relay & remote client alert](#).

For Sensor-related alarms, user should set to check sensor and select cameras to be triggered in [Sensor setup](#).

When you enable system capture image as an Email attachment, the system will capture a still picture from the Camera-related alarms or related camera for Sensor-related alarms to be sent as an attachment with E-mail.

The screenshot shows a web-based configuration interface with two main sections: SYSTEM SETUP and EMAIL SETUP.

SYSTEM SETUP

- SMTP Server:
- SMTP Port:
- Auth.Type:
- Login User ID:
- Login Pass:
- Send & Test button

EMAIL SETUP

- Send To:
- Copy To:
- Sender E-Mail:
- E-Mail Title:
- E-Mail ScreenShot As Attachment:
- Send Notification from Cameras(Screen Shot From Alarm Camera):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																
- Send Notification From Sensors(ScreenShot From Linked Camera):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Figure 2-12

2.5.1 SMTP Setup

【SMTP Server】 SMTP server address, ie: mail.jstDVR.com.

【SMTP Port】 SMTP listens for TCP's port for connect request.

【Auth.Type】 Logon mailbox. Operator will select SMTP authentic type. Or select "simple login".

【Login User ID】 Mailbox's ID.

【Login Pass】 Mailbox's password.

After user finishes setup, press to test the function.

2.5.2 E-Mail Setup

【Send To】 Set address of receiver.

【Copy To】 Set another address of receiver to whom system sends E-mail.

【Sender Email】 Enter email address of sender.

【Email Title】 Enter title of the E-Mail to be sent.

【Email Screenshot As Attachment】 When there is alarm, the system will grab picture, operator can select whether send the picture as attachment to the E-mail.

【Send Notification from Cameras (Screenshot From Alarm Camera)】 Operator can select the cameras which will trigger an E-mail to be sent when they have alarms.

【Send Notification from Sensors(Screenshot From Linked Camera)】 Operator can select the sensor which will trigger an E-mail to be sent when they have alarms.

***NOTE:** If the picture was sent as an attachment, user should check alarm of the camera or the sensor and set “alarm send to network” be enabled.

2.6 Digital Matrix Setup

MATRIX SETUP

Matrix Group: SetGroup1

Video Out Port: Video Out 01

Video Out Standard: PAL

Video View Mode: 4 View

Video Window: Window1

Video Switch Interval(Sec): 3 sec

Display Video Cameras In Window: Main camera channel

Grid of camera selection buttons (1-48):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																

DISPLAY SETUP

Display Group: SetGroup1

Video View Mode: 49 View

Video Window: Window1

Display Camera In the Window

Grid of camera selection buttons (1-48):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																

Figure 2-13


2.6.1 Matrix Setup






【Matrix Group】 System operator can set groups of video images to be sent out through matrix decode card. Each group has different display modes. Up to 16 groups

can be set.

【Video Out Port】 Select the output port of Matrix card that you want to set. The total number of channels is decided by Matrix Decoder card.

【Video Out Standard】 Set Matrix video out standard. User can select from PAL and NTSC.

【Video View Mode】 Select video output display mode, there are 1split , 2split

, 4split , 9split , 13split  and 16 split .

【Video Window】【Display Video Camera in window】 After selecting video split mode, there will be a corresponding display video window. Select one camera or several cameras to be shown in the window.

***Note:** one camera is only shown in one window once.

【Video Switch Interval(sec)】 Set interval for each window that shows cameras circularly when there's more than one camera in it.

2.6.2 Display Setup

【Display Group】 System operator can set a group of cameras to display for fast preview, including its display mode and cameras. Up to 16 groups can be set.

【Video View Mode】 Set the split mode. The split mode is same as the main window's display split mode. There are 1,4,9,13,16,20,25,28,33,36,40,49 and 64 partition mode.

【Video Window】【Display Camera in the window】 After selecting the video split mode, there will be corresponding windows. Select one camera show per window.

***Note:** One camera is shown in one window once, but each camera can display any window voluntarily. I.e: The 1st camera has been displayed in window 1, and the 2nd camera has been displayed in window 2. When changing the 1st camera to be displayed in window 2, the 2nd camera will be exchanged in window 1 automatically.

2.7 User Setup

USER INFORMATION									
Use Password	Disable			User Name			Auth. Level		
User Name	admin			admin			Manager		
Auth. level	Manager								
Password									
Password Confirm									
Note:									
				New User					
				Add					
				Modify					
				Delete					

USER RIGHT SETUP																															
View Cameras	<div>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32</div> <div>33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48</div>																														
Playback Cameras	<div>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32</div> <div>33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48</div>																														
Playback and View Audio	<div>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32</div> <div>33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48</div>																														
User Access Rights	<input checked="" type="checkbox"/> Pan/Tilt Control	<input checked="" type="checkbox"/> Color Adjust	<input checked="" type="checkbox"/> Modify Network	<input checked="" type="checkbox"/> Delete File In Search																											
	<input checked="" type="checkbox"/> Search Log	<input checked="" type="checkbox"/> Open Map	<input checked="" type="checkbox"/> Motion Setup	<input checked="" type="checkbox"/> Minimum																											
	<input checked="" type="checkbox"/> Open Explorer	<input checked="" type="checkbox"/> DO Control	<input checked="" type="checkbox"/> Matrix Control	<input checked="" type="checkbox"/> Exit Program																											
Setup Right	<input checked="" type="checkbox"/> System Setup	<input checked="" type="checkbox"/> Camera Setup	<input checked="" type="checkbox"/> Sensor Setup	<input checked="" type="checkbox"/> Linkage&PTZ																											
	<input checked="" type="checkbox"/> Email Setup	<input checked="" type="checkbox"/> Digital Matrix																													

Figure 2-14

2.7.1 User Information

【User Password】 Check to enable User Manage mode and activate the lock button in main window.



【User Name】 Input new User ID in this box when adding a new user to the system.


【Authorization Level】 Select user type. Only Administrators can enter User Manage Window and have the power of user management.

【Password】 Set new user or select user's password.

【Password Confirm】 Confirm password again.

【Note】 Input your description of this user.

【New User】 Press **New User** button to edit the user you want to add in the **【User Name】** blank. Input User Name, Note Name, Password, and Confirm Password. Select Manage Right (Administrator or Operator), and then click Add User to save.

【Add User】 Up to 15 users can be added to system except Admin. Click  icon to add new user you edited to user list.

【Modify User】 Select a user from user list, then click  button to modify.

【Delete User】 Select a user from user list, then click button to delete.

2.7.2 User Right Setup

【Viewable Camera】 Select the cameras to be viewed by the user you are setting. By default, every user is granted to access all live images. To deny access, you can click the desired cameras and the color will change from blue to gray.

【Playback Camera】 Select the cameras that can be play backed by the user you are setting. By default, every user is granted to playback video data of all cameras. To deny access, you can click the desired camera button and the color will change from blue to gray.

【Audio monitor right】 Select cameras whose audio can be heard by the user you are setting. By default, every user is granted to check audio of all cameras. To deny access, you can click the desired camera button and the color will change from blue to gray.

【Operation Right】 Select operational tasks, granting or denying rights. Operational tasks are normally reserved for administrative or privileged accounts. Operators are rarely granted rights to adjust camera colors, exit programs, explore files or operate PTZ controls.

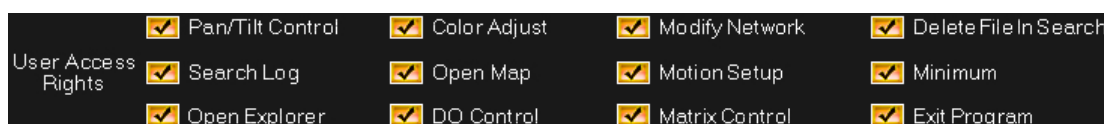


Figure 2-15

【Setup Right】 Select setup rights to grant or deny user privileges.

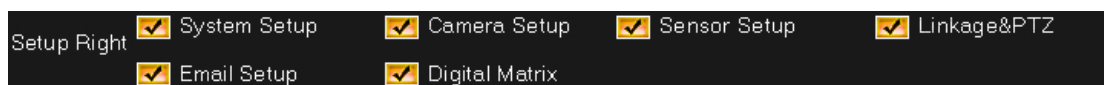


Figure 2-16

3 Local Playback

3.1 Main Interface



Click  button in the main interface to enter local playback interface.



Figure 3-1

3.2 Select Playback Channel

Click the number button in the upper right screen. DVR system will play back recorded data from the beginning of today.

Blue channel number means that channel has recorded data. Click channel number to select search camera.

Tips: Right click the picture to perform digital zoom function. Select one window (the 1st one is default), click the channel number and the playing will begin. Different colors will show information of all cameras. User can view all kinds of recordings, time and length according to the color. User can choose to play recorded data by clicking its time.

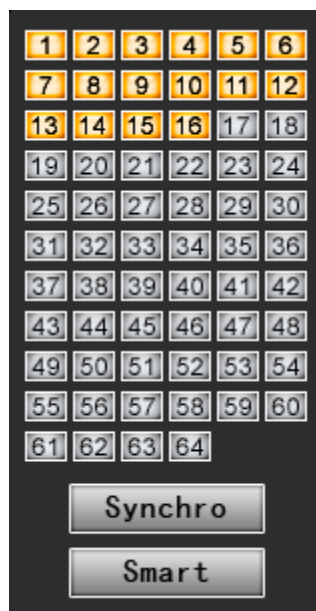






Figure 3-2

3.3 Play File and Related Operations

Press corresponding buttons to set partition mode of Windows. There are 1 , 4 , 9  and 16  splits. To reduce the load of CPU and get the best effect, user should select the partition mode according to the recorded channel amount and resolution. There is a referenced configuration sample as below:

Computer Configuration:

CPU: Intel Pentium 4 2.4GHz

Motherboard: ECS 848P-A

Graphic Card: ATI 9550 128MB

Memory: 512MB

HDD: 120GB(IDE)

Recommended channel configuration for playback:

DVR Board Channels	Record Resolution	Recommended Playback Channels
64	CIF	4
48	CIF	4
40	DCIF	4
	CIF	4
32	DCIF	4
	CIF	9
24	DCIF	9
	CIF	16

Less or Equal to 16	4CIF	4
	DCIF	9
	CIF	16



Press this button to open all playback windows in sequence according to the order of the cameras.



Press this button to close all playback windows.






Previous / Next frame: press these two buttons to look previous or next frame.



Reverse play: press this button to play video in reverse. The speed is determined by the playing speed adjustment bar.



Play/Pause: This button will alternate between Play and Pause. When it is playing, it will show . Press to stop and then the button will show . When you select reverse play, it will show .



Stop: press this button to stop playing.



First frame of that day, previous minute, next minute and last frame of that day.



Image zooms out. Left-Single-Click an image and a quarter of the image will be enlarged. Right-Single-Click the image again and it will resume to normal.



Adjust the voice: drag the bar to adjust the voice and click the left button to clear the voice.




Adjust playing speed: drag the bar to adjust the playing speed and click the left button to resume normal playing speed.

***Note:** It is not suggested that multi-channel (more than 10 channels) record or playback continuously unless your PC has an advanced configuration. Multi-channel searches in client and server are the same except for their paths. In client, they are in local; in remote search, it searches among the recorded data in server in the local network.

3.4 Capture Picture



Click capture button  to capture a still picture. When one is captured, a dialog will display to ask for a file name. After your confirmation, you will be asked to input the save path. ***Note:** the size of the image is that of the playing window.

3.5 Create Clip File

Click button .

3.5.1 Create File Clip

Press  to create file clip.

【Select channel and save path】 Select channel and save path of the backup file on the top of the interface.

【File list and attribute】 Select a file and double-click it to play. Its attributes will display below the list, including begin time, end time, file size, resolution, frame rate etc.

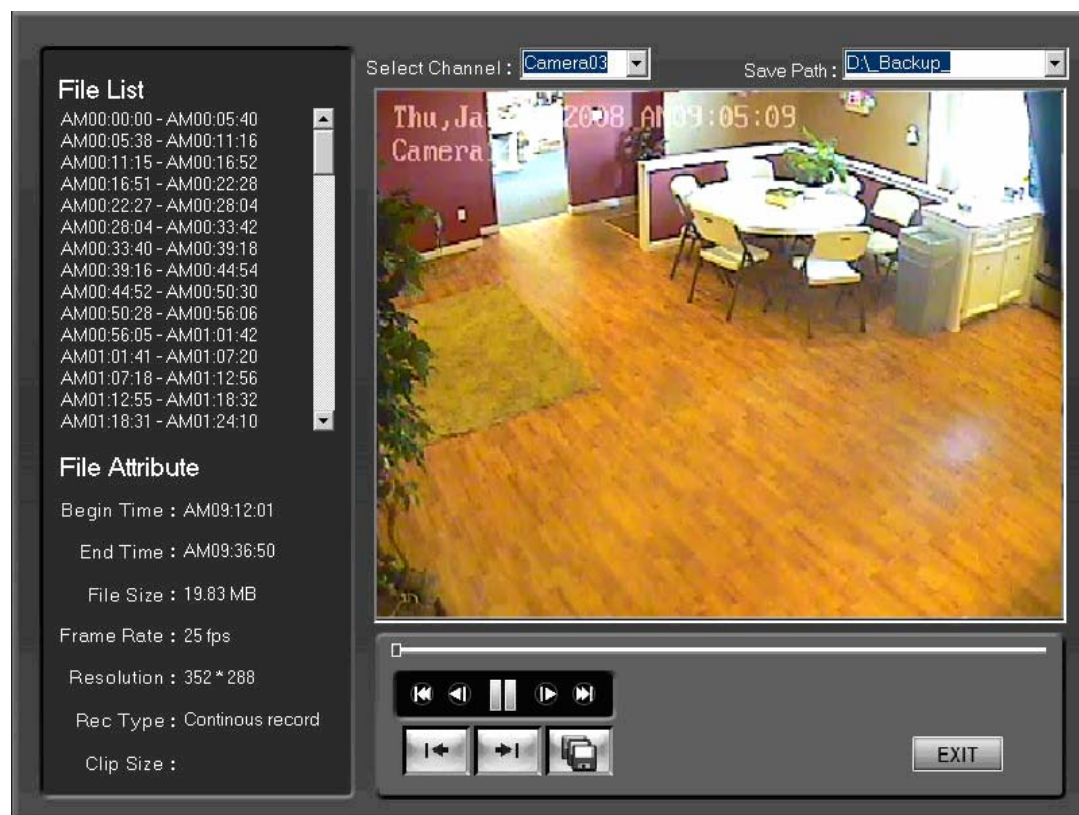


Figure 3-3



Figure 3-4

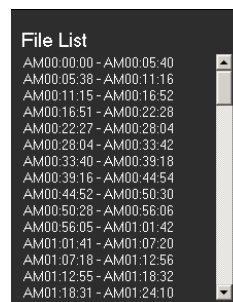




Figure 3-5

【Play control button】 User can press and drag slider on



【Beginning and stop position setup】 After you select a time, press  button to

set the beginning time. Then drag the bar to select another time and press  button to set the end time. When you finished, the file attributes on the left will show the size of the file to be created.

【Save file】 After you set the beginning and end time, press  button to save the file.

3.5.2 Backup By Time:




Press  to enter backup by time feature.

Figure 3-6

【Save Path】 Select path for the backup file. User can backup recorded file to a CD.

【Backup Camera】 Select the backup camera. User can also select more than one camera at one time.

【Select begin time】 【Select end time】 Select the beginning and end time of the file to backup.

【Unite File】 Select unite file enable or disable. If user selects enable, all recorded files of one camera will be united to one file. Otherwise, it won't unite all files of one camera to one file. And you can set the maximum value of the united file in **【Backup File Max Value】**.

【Backup File Max Value】 Sets the maximum value of the united file. If the value of file to backup is bigger than this value, the system will split the file. You can check the file's value by pressing **Check** button to show its total value.

【Backup Date Size】 Shows the size of the backup file. If user backs up recorded file directly to a CD, the size should not exceed more than 650M.

***NOTE:** If user backs up recorded file directly to a CD, the system disk volume's (C volume in general) free space should not be less than twice of the size of the backup date. The system volume will be used to buffer area when burning the CD. For example, if the backup date size is 450M, the system volume's free space should be more than 900M.

The process of burning a CD:

1. Select the CD-ROM as backup path then select the camera and time.
2. Check the backup file value.
3. Backup the file to the temporary file in the last volume, if there's enough free space. Otherwise, write backup file to the last second volume.
4. Write data to buffer.
5. Write CD.

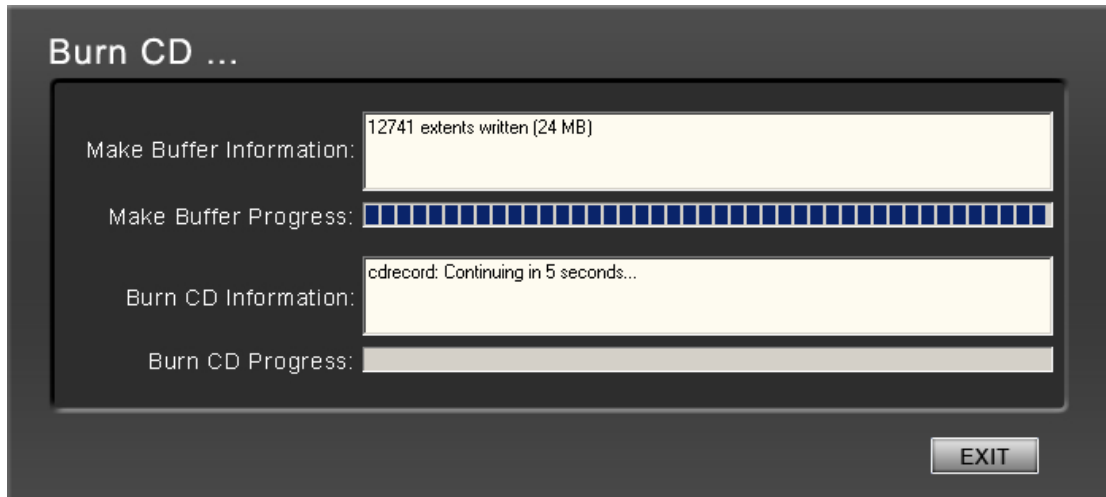


Figure 3-7

6. Delete buffer and temporary file.



3.5.3 View Backup File



Figure 3-8

- 【Select channel】** Select channel.
- 【Save Path】** Select path of the backup file.



- Select one file from File List and Double-Click. This file will be played. The united file is named by “date + begin time” and “date + end time”.
-  Capture a picture.
-  Burn CD

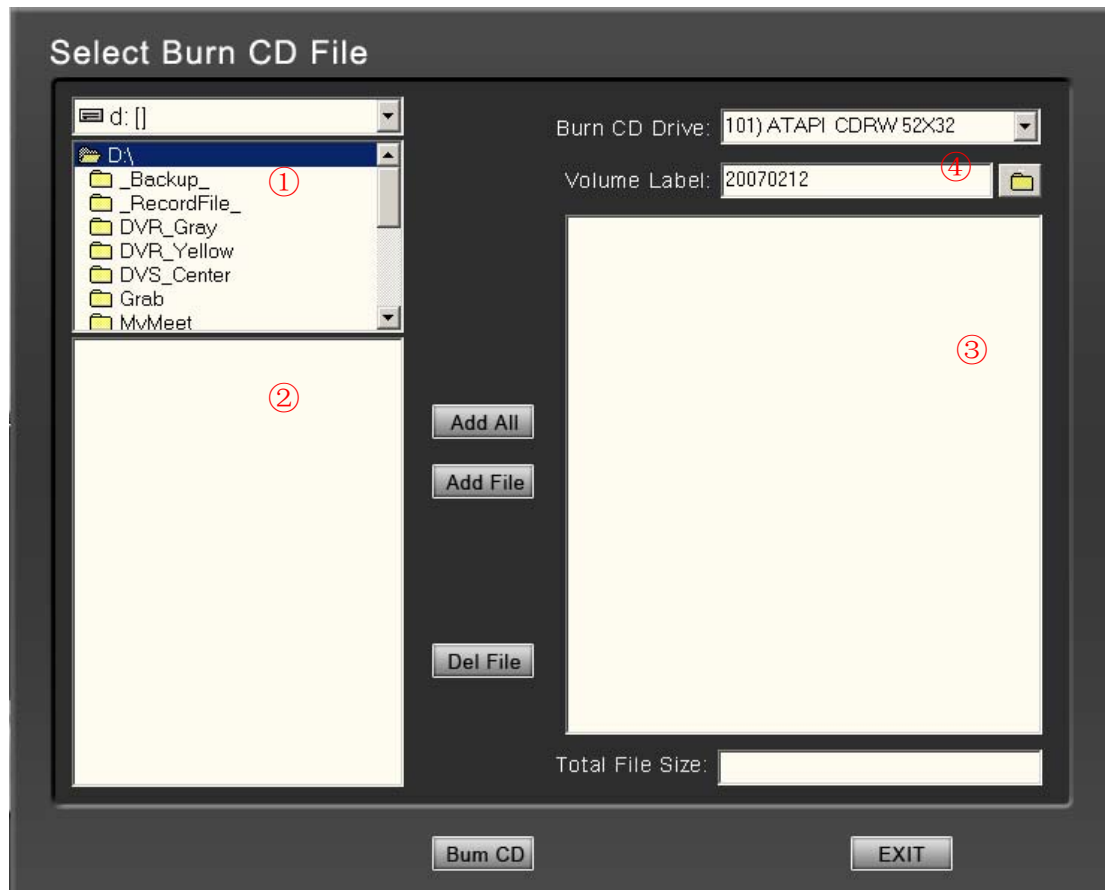


Figure 3-9

Area 1: File directory.

Area 2: File list.

Area 3: The File directory and list will be burned to CD.

Icon 4: Creates a new directory in area 4.

Add All: Add all the files from area 1 to area 2.

Add File: Add selected file from area 2 to area 2.

Del File: Delete selected file from area 3.

【Burn CD drive】 Selects CD-ROM driver.

【Volume label】 Sets the CD's label.

【Total file size】 Shows the size of all files that will be burned to CD.

Burn CD When you finish your setup, click this button to write file to CD.

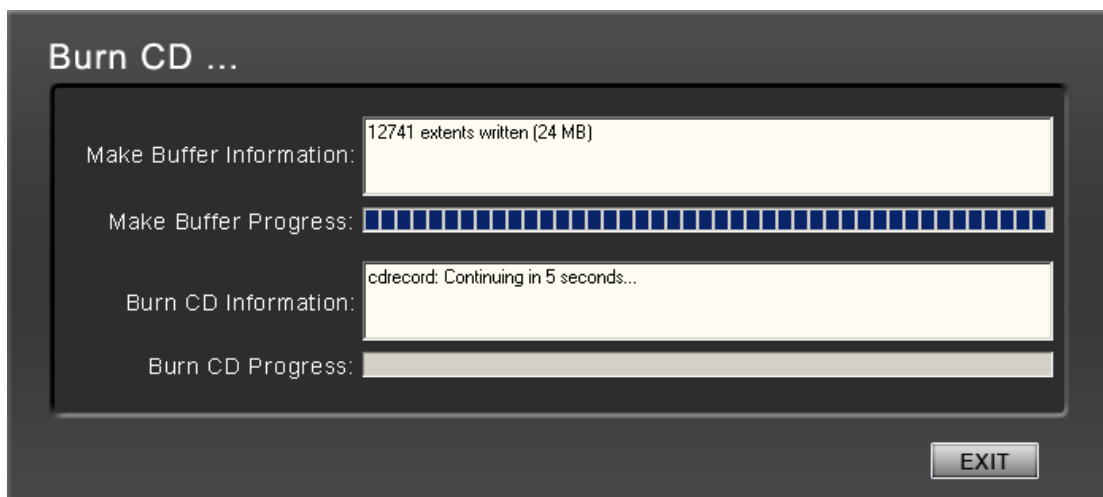



Figure 3-10

- f. **Copy player** Press **Copy Player** button to copy professional player for completed file to local computer.

3.6 Search Captured Picture

Click  to enter the search captured picture window:

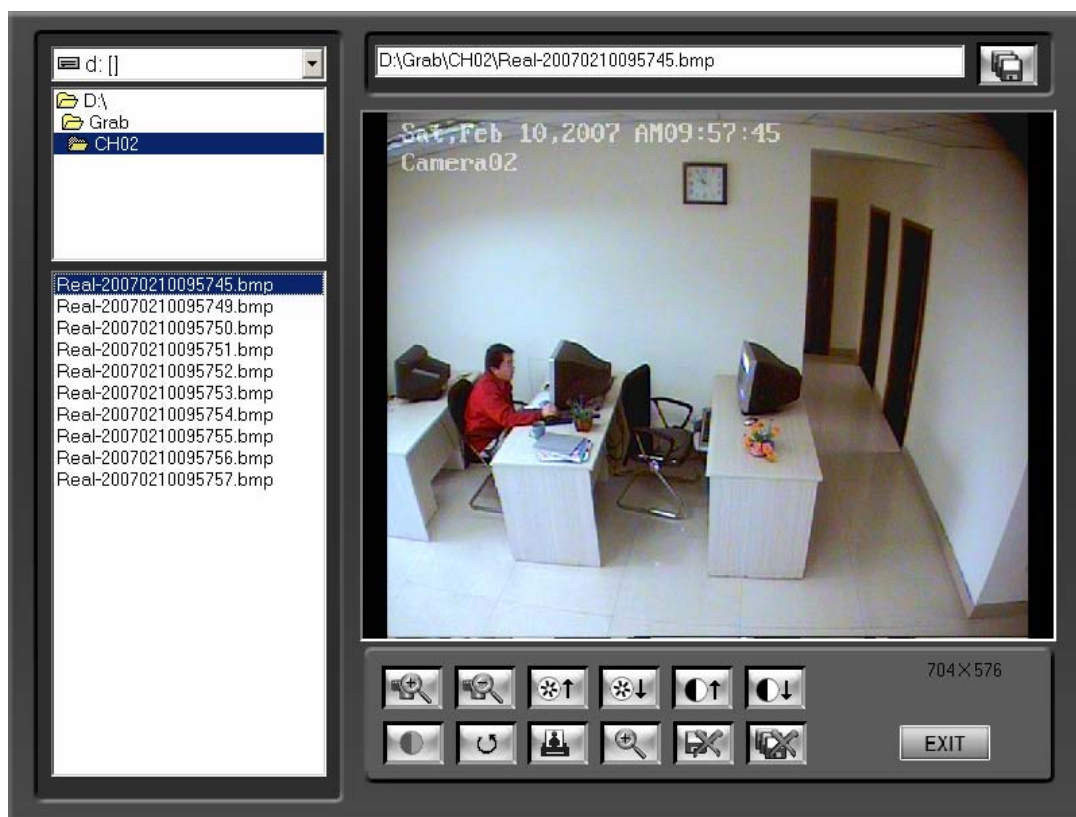
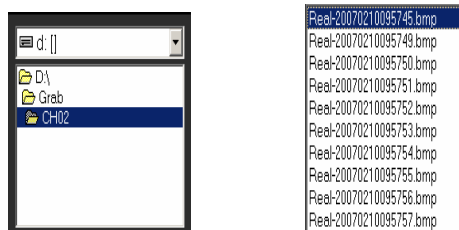



Figure 3-11

【Select pictures from directory and file list】 You can select a captured picture from directory list and file list in local disk and the file name will show in the top of the window.



Note:

If you want to save the reworked picture in another file, user can change its name and path here, with BMP or JPG as suffix. Then click the save button .

【Related operations】



Save the reworked picture.



Functional buttons of picture disposal.



When the result of disposal is not good, click to the default.



Print picture, when the image is wider than 400 pixels, it will be printed smaller. If it is wider, it will be printed bigger.



When it's bright, with the mouse moving, the picture will be enlarged.



Delete current file or delete all files.

3.7 Fast Search



Click  button to show the date (see Figure 3-12):

The green date is the current date. The gray dates signify no data. Only those in blue and green can be selected. When they are selected, the camera window will appear automatically to show which cameras have recorded data.

Click  or  to change month and year of search data.

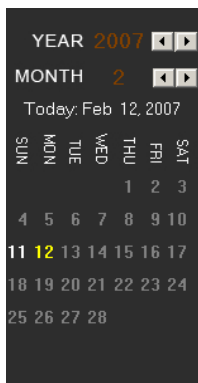


Figure 3-12

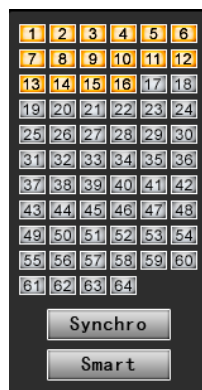



Figure 3-13

3.8 Camera Status



Click  button to show the cameras status. If the number is bright, it means there's recorded data in this channel.

Synchronic play

Click  button to synchronize all playback channel time.

Smart search

Function Introduction:

This function allows users to draw a zone on a video image and do a search for any motions, missing objects, or unattended object events occurred in that zone. It can help you find recorded video.

Note: Smart Search accuracy is decided by sensitivity value in [Motion Setup](#)

Operation and Example


Press  button, then select a search area ([Figure 3- 14](#)). The system will play all motion that occurred within this area from the previous 3 seconds to next 3 seconds when the motion occurred. Pressing this button again will end smart search.



Figure 3- 14

1. There is a telephone on the desk (Picture 1).
2. But now it disappeared (Picture 2).
3. If you want to know where the telephone is, first change the time, before the current time, when the phone is still there. Then you can select this area on the image to do a smart search when playing back the video.

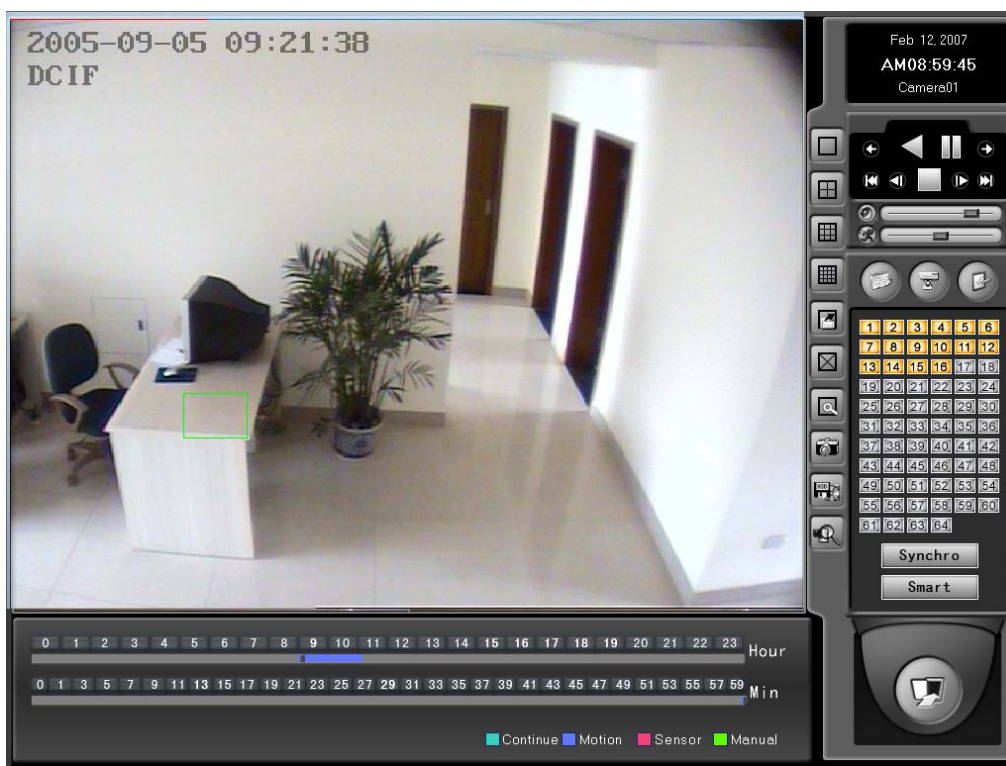


Figure 3-15

Note:

1. By pressing the synchro button while smart search is running, the system will end smart search.
2. The sensitivity of the smart search is the same as motion detection. If you set the system to high sensitivity, the system will search even that though there is no motion in

specified area. On the other hand, if you set the system to low sensitivity, it is possible that system will not search in the small range motion in the specified area. User should set the sensitivity according to the surroundings.

3.9 Show Files



Click  button to show all the files of current cameras.

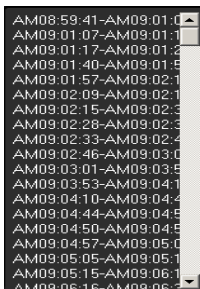


Figure 3-16



Last frame, Start, Pause, Stop and Next frame



First frame of that day, Last min., Next min. and Last frame of that day.



Image zoom out. Single click the left mouse button on an image. A quarter of the image will be enlarged. Single click right mouse button on the image again and it will resume to normal.



Adjust the voice. Click the button to clear the voice.



Adjust playing speed. Click the button to resume normal playing speed.

***Note:** 1. It is not recommended that multi-channel (more than 10 channels) record and playback continuously unless your PC has an advanced configuration. Multi-channel searches in client and server are the same except for their paths. In client, there are local and LAN searches. In LAN searches, it searches among the record data in the local network of server.

4 IE Client

The client user can view video of the DVR Server through Internet Explorer. The default web server port is 80; if [user changes it to other port](#), user should add this port number after domain name when visiting the video of the Server through Internet Explorer. I.e.: <http://192.168.0.119:1280>.

4.2 Functions of IE Client

1. Video display and video storage
2. Audio input
3. Search and playback video image locally or remotely

4. Control PTZ and speed demo remotely

4.2 Main Interface

When user connects to server successfully, they should input valid User ID and password to acquire rights to play video and other operations.

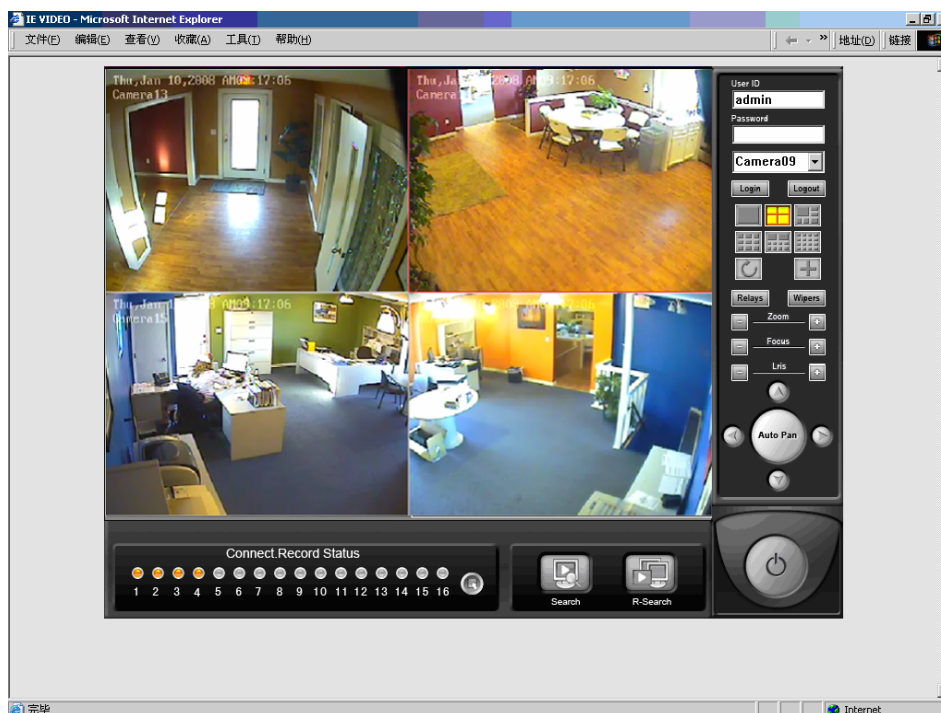


Figure 4-1

4.2.1 Connection Operations

Press **Login** will connect the DVR Server's camera video from **Camera01** and press **Logout** will disconnect all connections. If DVR Server channels are more channels that you selected in the partition mode, you can use button to display DVR Server's video in sequence. Pressing button will switch full screen mode and Right-Single-Click image can back to normal mode.

4.2.2 Connection/Record Status

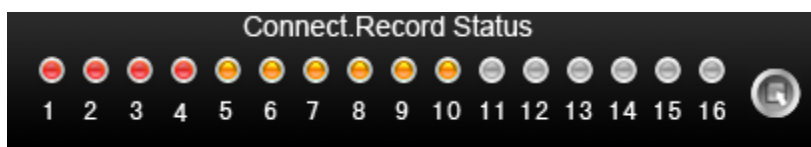



Figure 4-2

This icon (Figure 4-2) indicates the current connection and their recording status:

Gray:	Not connected;
Yellow:	Connected with no recording;
Red:	Connected with recording.

You can change the record status by pressing corresponding number button or change status of all connections at the same time by pressing  button.

4.2.3 Partition Mode

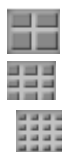
You can set the partition mode by pressing corresponding button on the right of main interface. It has follow partition modes:



—— 1 Partition mode;

—— 6 Partition mode;

—— 10 Partition mode;



—— 4 Partition mode;

—— 9 Partition mode;

—— 16 Partition mode.

4.2.4 PTZ Control

Most functions of PTZ control are same as [PTZ Control Panel](#) in DVR Server.

4.2.5 Quit Program



Press  button to shut down the IE Client.

4.3 Local Search


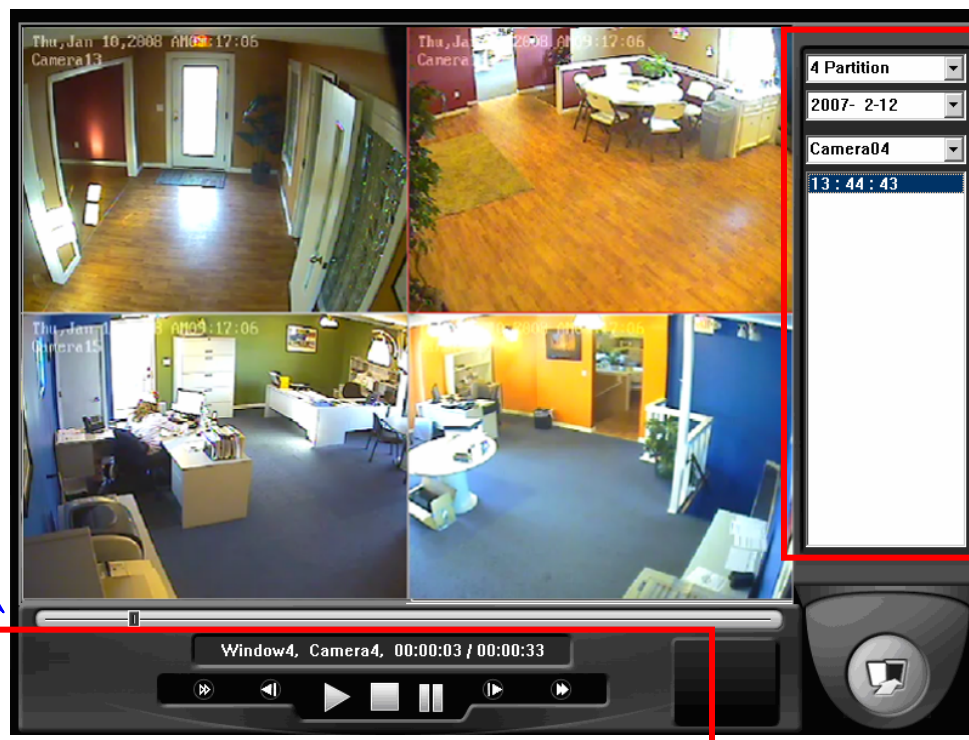
Press  button to enter local search (Figure 4-3):


Figure 4-3



Display setup and data information. In this area, you can select display partition mode, date, video channel and its video file named according to the time.

Playing Operation Area

In this area, you can operate video playing:

【Video-playing time adjustment】 Press and drag slider bar  to adjust video-playing time.

【Information display panel】 Display current window name, camera name and recorded data information.

Window4, Camera4, 00:00:03 / 00:00:33

【Playing-control buttons】    : Play, Stop, Pause.

【Single frame play】  /  : Previous frame, next frame


【Playing speed control】  Slow play  Free play

4.4 Remote Search


Most functions and operations of Remote search are same as [Local playback](#). The only different feature is that remote search added a download feature ([Figure 4-4](#)).



Figure 4- 4

When you playback remotely, click  button. The system will save the video of the current channel you selected. After finishing, system will inform user of the pathway.

4.4.1 Fast Download Record Data

In the playback mode, select one camera that has recorded data. Open file list panel, select one data file, and click  button. The selected data file will download quickly.

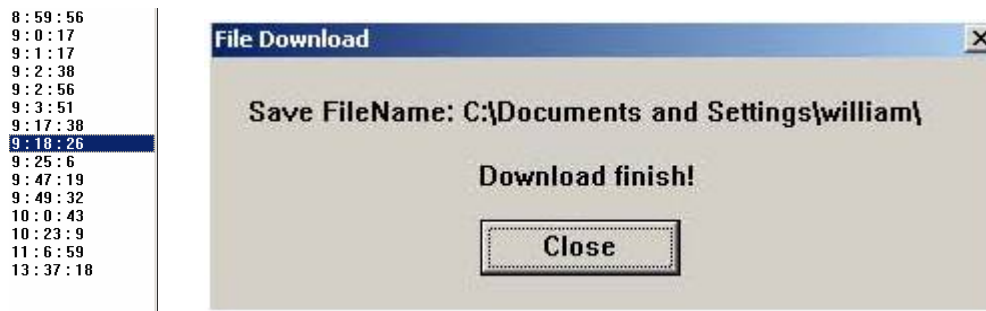


Figure 4-5

***NOTE:** When a user uses client to view and connect to the DVR server, a four partition blue window will appear. If connection was unsuccessful, user should check the following:

- a. The Web server port has been used by other programs.
- b. Your computer didn't download the player plug.
- c. The security of your computer is too high, or your computer has plug filter.

5 Appendixes

5.1. Appendix A: Fast key reference

Please refer to [shortcuts keyboard setup](#)

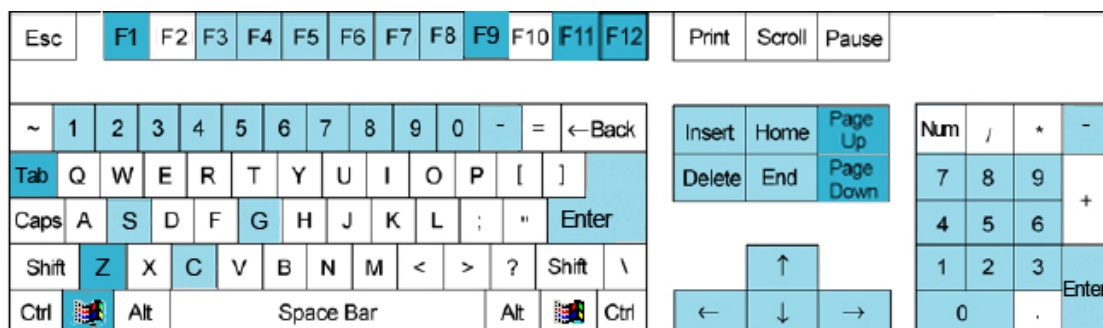


Figure A-1



This color key denotes PTZ control.

This color key is function control.

PTZ controls:

Key	Function
↑	Up
↓	Down
←	Left(in the status of preview)
	Play last frame(in the status of instant playback)
→	Right(in the status of preview)
	Play next frame(in the status of instant playback)
Home	Zoom-
End	Zoom+
Insert	Focus-
Delete	Focus+
S	Save preset
G、Enter	Call preset
C、—、Num0-9	Presets Control Operation
F3-F8	Tracking all presets, interval is 3-8 Sec of every preset.(F3 denotes 3sec.F4 denotes 4 sec,F8 denotes 8 Sec etc.)

Other controls:

Key	Function
F1	System Help
Tab	Switch the camera channel
Page Down	Next screen
Page UP	Previous screen
F9	All cameras recording 30 sec emergency
F11	Zoom in/out the single camera view
F12	Switch to Full screen mode (Equivalent to pressing space key except Instant Playback mode)
Ctrl + 0	Enter local playback
Ctrl + 1-9	Instant playback minutes
Shift + 1-8	Select screen partition 1,4,9,16,25,36,49,64
WIN+ Z	Minimize the Main System window

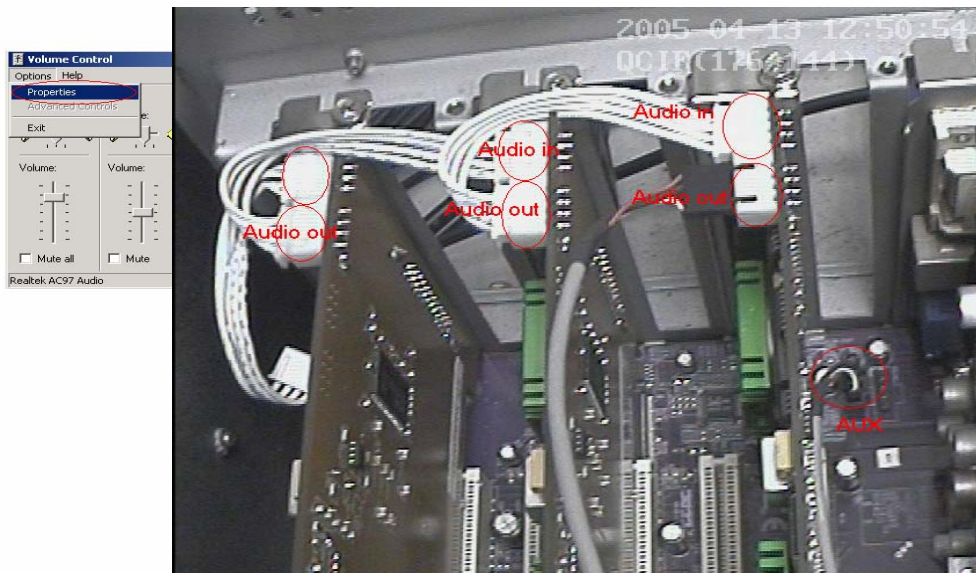
5.2. Appendix B: Audio Preview

First, use the cables to connect the card. See B-1.

Figure B- 1

NOTE: In some instances, there is no sound preview.

Solution: double click the volume control of in the taskbar, open the properties dialog box, and check AUX control.

**Figure B-2**

5.3. Appendix C: Update Drivers of Compressed Card

If user installs the card or upgrades the DVR software, you should install or update the card driver. See install steps below.

Find the driver folder, and run “driver Install” program.

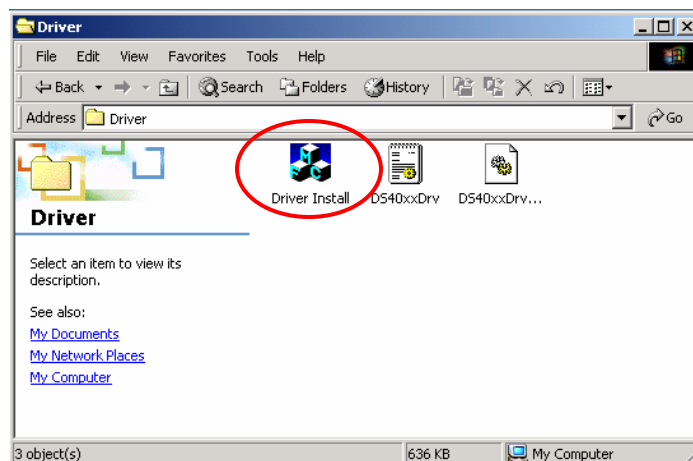


Figure C-1

A dialog will appear.

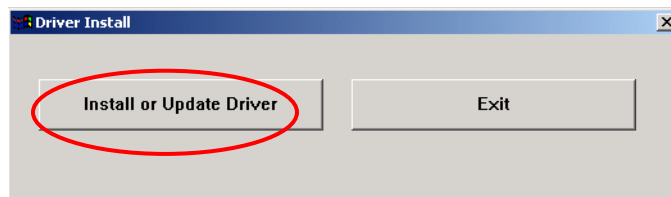


Figure C-2

Click “Install or Update Driver” button. A prompt will pop up, click “yes”, the program will continue the installation.



Figure C-3

If the driver installed successfully, the program will show you a prompt, click OK, the install driver program finished.

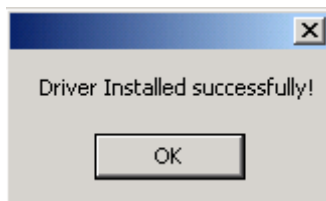


Figure C-4

5.4. Appendix D: How to use “Copy File” folder.

In the installation CD, the file's named “Copy File”.

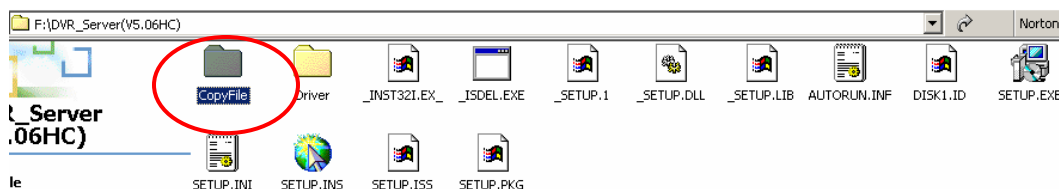


Figure D-1

If user wants to replace files in the installation directory, user can copy new files into “Copy File”. When finished the installation, the new files will replace the old files.



Figure D-2

If you want to replace files in the installation directory, you can create the same directory in “Copy File” folder with the installation directory.

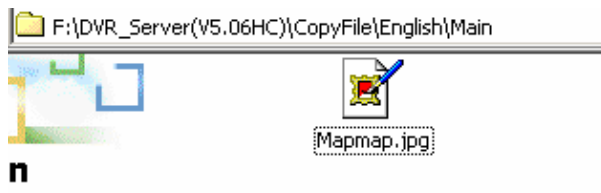


Figure D-3

When you finished the installation, all files that are in “Copy File” will replace the old files.

Note: If you replace the image, the new image's size and name should be same as the old image.